

2018 | FOR INSTITUTIONAL AND CORPORATE CLIENTS ONLY

DEBT CAPITAL MARKETS

2018REVIEW
2019FORECAST

YEAR-END REPORT FROM THE SG DEBT CAPITAL MARKETS AND SYNDICATE TEAMS
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EXECUTIVE SUMMARY

“We have normality. I repeat, we have normality. Anything you still can't cope with is therefore your own problem.” *Douglas Adams*

In last year’s edition, we commented that the outlook for the second half of 2018 was more uncertain, particularly in Europe. We were right with the direction and less accurate about timing. Markets started to deteriorate as early as May.

For the first time since 2011, the endless growth of corporate new issue volumes in euros was put to an end. Execution risk has resurfaced with “go/no-go” calls suddenly becoming interesting discussions. Several live transactions had to be pulled, and many more quietly stood down as funding terms became less compelling than loan opportunities. Investors have become more selective and deal sizes are once again highly price sensitive.

But since the peak of the Italian elections crisis in May the market has also seen healthy periods. Credit, supras and agencies have all demonstrated their defensive strengths. Long-dated deals, inaugural transactions and unrated bonds have all had moments where they were well received. Investors for the large part are still adding money to the asset class and even in the face of greater volatility, there is no sign of any great rotation. New issue premium is rising, but M&A refinancing and strategic offerings still continue to account for a large part of the volumes.

We are at the end of a chapter where the spectre and umbrella of the European Central Bank resulted in markets being both resilient and attractive. This return to “normality”, should in the longer run be beneficial to the most traditional asset-managers, insurance companies and pension funds. Their voice had become more difficult to hear due to the overwhelming presence of central banks and, in some cases, hedge funds (e.g. sovereign bonds). It will also to some extent facilitate market reading by issuers and banks, which will be able to derive pricing indications out of more reliable secondary curves. And it will also benefit specific market segments, such as covered bonds or green bonds.

Green bonds, in particular, will benefit from a very favourable alignment in 2019. Demand continues to expand at fast pace, as asset managers are pressed by both their clients and the regulator to accelerate

and document their sustainable policy investments. In contrast, supply expansion is slowing down for the first time, as more and more issuers have difficulties sourcing enough eligible assets to be able to issue every year. Finally, with the ECB demand fading away and execution risk on the rise, the premium attached to green bonds by buy-and-hold investors will become increasingly palatable for issuers. It is already a reality for frequent issuers such as the European Investment Bank or KfW, that their secondary green bond curve is not aligned with their “general purpose” bonds. And whilst the list of “more difficult than expected” transactions has been populated steadily during the year across sectors, green bonds have in contrast enjoyed a strong momentum in almost all market conditions.

When reflecting, 2018 has still been a good year for bond markets. Underlying yields and new issue premium remain compressed, although with greater volatility from one week to another and from one sector to another. The euro market continues to gain market share with non-European and non-US issuers and, like its big cousin in the US, has showed its capacity to reprice quickly in volatile markets, allowing those issuers with important funding needs to access the market when they decide to, as illustrated by Takeda and Volkswagen in November. As already demonstrated this year, “stop and go” will unfortunately be difficult to avoid in some areas, such as the high-yield and emerging markets segments, but do remember that such periods were relatively normal prior to central bank intervention.

The scene is set for 2019: more demand for sustainable and green bonds, more selective investors, more attention to credit stories and sectorial trends, and more competition among issuers for liquidity. Rates and new issue premium are expected to be on the rise, but these will be very difficult to predict, due to the growing influence of political and macro-economic uncertainties and competing supply. More than ever, a close monitoring of market drivers and investor behaviour will be critical to allow potential issuers to make the right choices.

DEBT CAPITAL MARKETS ISSUANCE VOLUMES

DCM issuance volumes on EUR market

In EUR bn	Corporate bonds				Financial bonds					SSA bonds				Total Bonds
	Investment grade	High yield	Hybrids	Total	Covered bonds	Senior preferred	Senior HoldCo/ SNP	Hybrids	Total	Sovereign	Agency/ Supra	Local authorities	Total	
2015	220	55	26	301	154	160	26	44	383	947	164	59	1170	1854
2016	274	50	9	333	132	122	56	28	337	844	190	52	1086	1757
2017	288	82	12	382	117	118	69	41	346	930	235	53	1217	1945
2018 Expected	241	58	19	318	141	125	68	28	362	909	203	56	1168	1848
2019 Forecast	250	53	20	323	145	130	90	35	400	922	201	52	1175	1898
2019 vs. 2018	+4%	-9%	+4%	+1%	+3%	+4%	+32%	+25%	+10%	+1%	-1%	-7%	+1%	+3%

Source: SG CIB Analytics, Dealogic

DCM issuance volumes on USD market

In USD bn	Corporate bonds				Financial bonds					SSA bonds				Total Bonds
	Investment grade	High yield	Hybrids	Total	Covered bonds	Senior preferred	Senior HoldCo/ SNP	Hybrids	Total	US Treasury	Sovereign non-US	Agency non-US/ Supra	Local authorities	
2015	787	262	8	1057	22	318	144	122	605	2123	84	244	13	4126
2016	747	229	1	977	17	330	174	111	631	2070	116	295	29	4118
2017	796	282	2	1081	12	457	176	70	715	2047	158	270	34	4305
2018 Expected	720	190	1	911	13	375	190	65	643	2282	122	216	13	4187
2019 Forecast	715	220	2	937	15	360	240	70	685	2768	120	222	21	4753
2019 vs. 2018	-1%	+16%	+54%	+3%	+15%	-4%	+26%	+8%	+7%	+21%	-2%	+3%	+62%	+14%

Source: SG CIB Analytics, Dealogic

DCM issuance volumes on GBP market

In GBP bn	Corporate bonds				Financial bonds					SSA bonds			Total Bonds
	Investment grade	High yield	Hybrids	Total	Covered bonds	Senior preferred	Senior HoldCo/ SNP	Hybrids	Total	Sovereign	Agency/ Supra	Total	
2015	15	7	2	24	9	11	2	5	27	112	23	135	185
2016	19	4	0	23	6	8	5	3	22	113	24	137	182
2017	33	13	1	46	11	20	3	7	41	121	23	144	232
2018 Expected	16	6	1	23	18	12	7	6	43	97	32	129	195
2019 Forecast	18	7	1	26	16	11	8	8	43	162	38	200	269
2019 vs. 2018	+13%	+17%	+100%	+16%	-11%	-8%	+14%	+33%	+0%	+67%	+19%	+55%	+38%

Source: SG CIB Analytics, Dealogic

DCM (in addition)

In USD bn equivalent	ESG	In USD bn equivalent	Asian supply*	CEEMEA supply**	RUB***	LATAM supply
	ALL		ALL	ALL	ALL	ALL
2015	42	2015	178	87	26	80
2016	99	2016	205	156	29	125
2017	162	2017	322	205	31	146
2018 Expected	137	2018 Expected	240	174	21	75
2019 Forecast	160	2019 Forecast	280	168	27	110
2019 vs. 2018	+17%	2019 vs. 2018	+17%	-3%	+29%	+47%

Source: SG CIB Analytics, Dealogic
*All Asia excl. Japan G3 currency bonds
**Source: Bond Radar
***Source: Cbonds

Syndicated Loan issuance volumes in USD bn equivalent

In USD bn equivalent	EMEA loans		Americas loans	Asia Pacific loans	Total Syndicated loans
	Investment grade	Total	Total	Total	
2015	1005	1371	2401	739	4511
2016	672	1019	2610	756	4385
2017	653	1104	2907	807	4818
2018 Expected	700	1130	3135	750	5015
2019 Forecast	750	1200	3300	750	5250
2019 vs. 2018	+7%	+6%	+5%	+0%	+5%

Source: SG CIB Analytics, Dealogic

DEBT CAPITAL MARKETS

CORPORATES

For the first time in years, in 2018 the international corporate bond markets saw a dip in new issuance volumes. While the amount was immaterial, it has signalled the end of boundless growth in corporate credit. We see two factors as primarily responsible for this decline: US tax reform and increased market volatility.

- At a headline level, the tax reform in the US incentivised US corporates to repatriate much of their overseas cash at economically efficient levels. While there was no restriction in doing so before 2018, the new lower tax rates on cash repatriation has allowed corporates to tap into these reserves and, in some cases, pay down existing debt. This netting effect is due to US corporates no longer raising debt against their overseas cash piles, particularly within the tech sector, which has led to a decrease in overall issuance. Some of this decrease has been offset by attractive financing conditions that support corporate growth, both organic and inorganic. This, however, has only bridged a portion of the shortfall.
- This repatriation has also had an impact on the EUR market, with reverse-Yankee volumes declining in 2018. Additional factors have played into the lower new issuance volumes in Europe: primarily a pick-up in volatility, which has led to less predictable underlying rates, rising credit spreads and more window-driven markets. Volatility has risen, as the likes of the Federal Reserve (Fed), the European Central Bank (ECB), the Bank of England (BoE) and the Bank of Japan (BoJ) have migrated from a position of quantitative easing towards monetary policy tightening. The lack of immediate support has meant that negative newsflow sources have had a greater impact on market sentiment than over the past few years. The knock-on effect for issuers has been a slightly less appealing corporate bond market, thus

leading to fewer incentives to both disintermediate bank finance and pre-fund maturities further along the redemption profile. Debt financed M&A remains largely intact, as a source of issuance decisions are taken at a more strategic level and issuers continue to be willing to pay marginally higher premiums in bond markets to refinance such acquisitions. Catalysing this effect is that, even in the context of jumbo-sized deals, the additional premiums required tend to be relatively slim in order to attract substantial market appetite. This was true in both Europe and the US, as evidenced by Sanofi's EUR 8bn and Comcast's USD 27bn transactions.

- In addition to widening credit spreads and slightly lower volumes, the key theme for 2018 with investors has been one of selectivity. We explore this a little further in the market sections, but at a headline level, investors have been wary of buying anything at a low premium, as valuations have been expensive. With secondary spreads compressed, and often distorted by central bank quantitative easing, quite often the price to clear a new benchmark is different to the secondary curve plus a uniform premium. Rather, specifics must be acknowledged in terms of existing bond ownership, credit profile, size targeted, as well as the tenor being considered. In this respect, the input of experienced syndicate managers in execution has been of greater value in 2018 than in some previous years during the realm of forever performing spreads.

tapering to zero as we enter January 2019. In other words, from 2019 corporate issuers will once again have to rely purely on private sector investors for their debt issuance.

- In our opinion, the lack of central bank activity is no cause for alarm. However, it is not without impact, as we are emerging from abnormal times back towards

Investment Grade

EUR MARKET

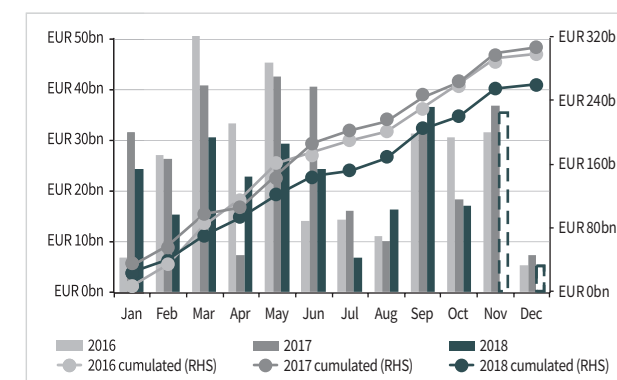
2018 review

- 2017 and the two years prior were largely characterised by the term 'easy money'. This supply of easily accessible and cheap money, even at negative yields, was underpinned by monetary policy easing. 2018 will see the end of net purchases under the ECB's Corporate Sector Purchase Programme (CSPP) in Q4 with the current EUR 15bn per month

a more typical market environment. It is largely our view that the lack of CSPP is already priced into spreads. Since the financial crisis, credit markets, much like equities, have often "bought the rumour" and then "sold the fact", and we see this event as no different. Historically, every statement by the ECB that it was tapering its purchases quickly translated into expectations and, therefore, spread moves for corporate bond issuers. As such, by the time the tapering actually took place, the impact was already fully-loaded into spreads. We expect the final leg of ECB tapering to have a similarly muted impact on spreads. However, it is our conviction that, without the ECB, the impact of other sources of headline volatility, whether fundamental, geopolitical or otherwise, will result in a more nervous market featuring heightened short-term volatility, and ultimately where we are likely to see a return of issuance "windows". In other words, we will see more "no-go" days where issuers will have to step aside and wait for the optimal window. In fact, this paradigm has been at play for the better part of 2018.

- For the end of 2018, we expect final EUR corporate volumes to reach EUR 260bn, compared with EUR 300bn in 2017 and EUR 283bn in 2016. This will make 2018 the first year since 2011 that the EUR corporate market volumes are lower than the previous year. We believe the drop in 2018 is largely the function of two drivers: the disappearance of "abnormal times" of easy money which has partly resulted in a drop in reverse-Yankee issuance volumes from US corporations; and the increase in market volatility that has dampened some of the impetus that drove early refinancing exercises.

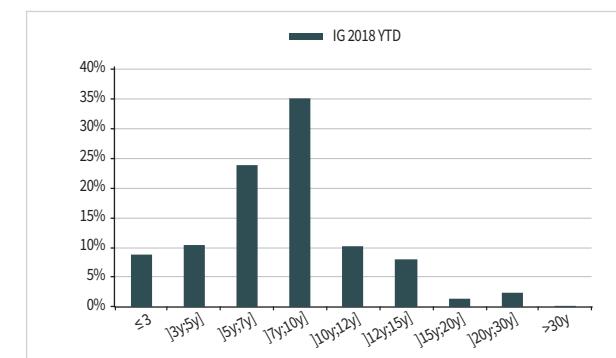
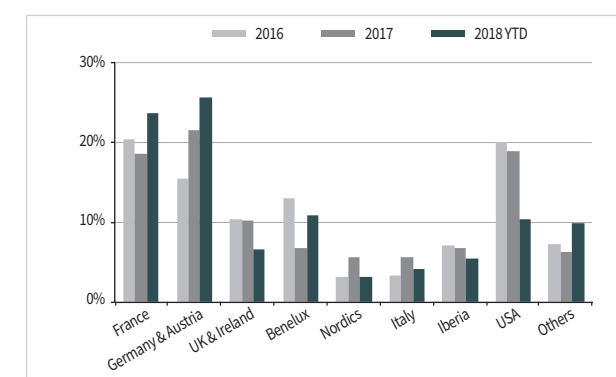
Monthly breakdown of EUR IG supply volumes in 2016-2018 (Nov. and Dec. forecasts)



Source: SG CIB Analytics, Bloomberg

- Looking at the former, reverse-Yankee issuance from US corporations has seen a marked fall in 2018 back to 9% of total volumes. Traditionally, such issuers made up ~7-10% of EUR volumes, but this percentage rose to 21% in 2015, 19% in 2016 and 17% in 2017. The increase lay in the attractive pricing conditions which were underpinned by the ECB's CSPP, the desire to match assets with corresponding liabilities (especially given the fall in the euro vs. the dollar during 2014) and, finally, a mature and deep investor base which allowed US corporates to further diversify their stakeholders. As the ECB started to unwind its CSPP and the EUR spot rate improved amidst a more favourable economic outlook, the first two of these three drivers became less prominent. And of course, this in parallel with the US tax reform which, as mentioned in the summary, has lowered US corporates' total debt issuance needs. As a result, in 2018 to date we have seen a return to a more traditional reverse-Yankee volume.

Significant decrease in issuance from US while belly of curve remains most popular tenor



Source: SG CIB Analytics, Bloomberg

- In terms of the latter driver, wider spreads and increased volatility have indeed curbed some of the impetus that drove early refinancing exercises and disintermediation of bank finance. Early refinancing exercises are best characterised by liability management operations, specifically tender offers (with new issues), exchange offers and consent solicitations. Plainly, this is because the main driver of early refinancing is to lock-in what are believed to be good current all-in yields and to protect against potentially increasing costs going forward. Looking at 2018 year-to-date, we have had 42 liability management transactions from European borrowers in the EUR market. This is relative to 78 in 2017 and 76 in 2016. And it is worth remembering that one could easily have argued for greater volumes of liability management in 2018 caused by of an expectation of higher yields in the second half of the year and 2019. But this has failed to materialise, largely because the all-in rates (and thus economic value) are not as appealing as in the previous two years. The same theory largely holds for disintermediation of bank finance. Given that public bond spreads are more volatile and reactive than bank loan levels, it is normal that a number of refinancing trades scheduled for the bond markets have been delayed or may need to take one more turn in the loan market.
- Beyond these drivers, in our view the fundamental forces driving the corporate bond market remain positive, and we can expect market growth to resume, albeit from a slightly lower base level. This was evidenced in 2018 by a continued number of issuers from outside European and North America tapping the EUR investor base. In 2018, this number rose from 6-7% over the previous two years to 10% of the overall market size in 2018. This also indicates a market which continues to mature.
- Other than the tapering of the ECB's CSPP, what else has led to increased volatility and less attractive funding conditions? Measuring the impacts of geopolitics is hard, especially without a like-for-like comparison with previous events. Last year we commented that "perhaps the biggest difference seen in 2017 versus 2016 was the staggering resilience displayed by markets in the wake of several geopolitical events and key elections". While the market has remained resilient on the whole, it would be hard to apply that statement to 2018. President Trump's protectionist rhetoric and policies have had an impact as have increased sanctions across the globe. Brexit and Spanish politics have caused borderline disruption, while the Italian elections and its ensuing results have also left their mark. In each case, it is a subsection of issuers that are primarily impacted. In the case of Italy, they are the domestic issuers, particularly those with ties to the central government, as investors sought out compensation, read larger premiums, for the swings in Italian BTPs. In the case of increased protectionism, the "trade war" has most been felt most keenly by borrowers with global supply chains. Share prices were directly impacted and pricing competitively priced new bond issues has required a great degree of care. Timing

- new issuance has been of fundamental importance in 2018. Beyond those directly impacted there are indeed second-order effects, one whereby headlines dampen investor confidence, with a knock-on effect on broader sentiment. While it has not closed markets, it has led to greater investor selectivity on a temporary basis, periods of higher premiums and weeks with lower subscription ratios.
- Such sources of headline volatility have merged with the global rate outlook and unwind of quantitative easing, leading to views on how far and fast underlying rates will rise, also impacting the shape of the curve. Such expectations of the shape of the Bund curve have had material impacts on investor demand, but these impacts have not been linear.
 - Looking over the year's progression, the context at the start of 2018 was supportive. Economists spoke of "synchronised global growth", economic data was positive and the US tax reform provided positive impetus. Against this backdrop, underlying rates started to rise, but at a steady pace, as confidence grew. Credit spreads tightened. Lower spreads were also supported by moderate global volumes and favourable technicals with cash flowing into the asset class. However, as Q1 evolved, the realisation that the ECB's CSPP program would slow down or stop dawned on investors, and expensive valuations came into focus. Rising yields started to impact confidence, leading to both wider and steeper credit curves. Initially, wider spreads and higher rates spurred primary activity as issuers awoke to the realisation that the excellent conditions experienced for many years (lower rates and tighter spreads) were nearing an end. This resulted in a recovery in volumes in late Q1 and early Q2, albeit not enough to catch up with previous years by the end of May.
 - As we moved into the summer, geopolitical risk came to the fore with populist parties in Italy coming to power, and resulting in significant selling of Italian assets. Mexico voted Andres Manuel Lopez Obrador into power and President Trump escalated his rhetoric and actions, levelling higher tariffs on a broader array of goods. Financial assets came under pressure, especially those with a higher risk profile.
 - In addition to the impact on peripheral credits, the environment became tougher for the sale of long-dated EUR corporate bonds. The discount at which hybrid subordinated bonds traded to senior notes increased and opportunities for cyclical names, for unrated borrowers and for inaugural issuers became less obvious. As confidence softened, investor selectivity grew and expensive secondary curves often widened out to meet new issues. This culminated in two pulled transactions in mid to late May, firstly Bertelsmann and then Whirlpool. After this, new issue premiums increased, orderbook oversubscriptions shrank, and the average tenor on new issues shortened. Although June did see the market remain open, total volumes in the May-to-July period came to just EUR 64bn, down from EUR 98bn in the corresponding period of 2017.

- The post-summer period saw a revival. For a period, rhetoric of trade wars subsided, the global economy appeared robust and the material events of Brexit and Italy held out until Q4. Technicals improved and investors held significant portions of cash. So as the summer break ended, the market was on a far firmer footing and issuers subsequently took full advantage of this period of renewed stability. From the last week of August through until the end of September EUR volumes hit EUR 45bn, up from an average of EUR 35bn in the previous two years. Nonetheless, the increase was not enough to make up for the overall decline across the year. At the end of Q3, EUR investment grade (IG) volumes totaled EUR 209bn, compared with EUR 238bn in 2017 and EUR 220bn in 2016 (i.e. down 12.5% and 5% respectively).
- 2018 saw the continuation and development of themes that were already gracing the market in prior years. Cheap all-in funding levels from a historic perspective combined with an ever-maturing investor base to ensure continued favourable conditions for M&A trades. Sanofi recorded the largest deal of the year and the fourth largest ever with its EUR 8bn offering in March to refinance the acquisitions of Bioverativ and Ablynx (with Societe Generale acting as global coordinator). We also had periods where successful 20-year benchmarks could be priced, e.g. Michelin, RTE, Unibail and Vonovia (as well as Sanofi), and witnessed the ongoing development of the corporate hybrid market.

Western Europe issuers were the most active in the EUR IG corporate market in 2018

Issue date	Issuer	Country	Ratings at launch	Deal value (EURm)	Tranches
14-mars-18	Sanofi	France	A1/AA	8 000	6
15-nov-18	Takeda	Japan	A2/A-	7 500	6
19-Jun-18	Bayer	Germany	Baa1/BBB	5 000	4
9-Jan-18	AB InBev	Belgium	A3/A-	4 250	3
12-nov-18	Volkswagen	Germany	A3/BBB+	4 250	4
15-Mar-18	Richemont International	Switzerland	NR/A+	3 750	3
24-Sep-18	Abbott Ireland Financing	USA	Baa1/BBB	3 420	3
16-mai-18	Pemex	Mexico	Baa3/BBB+	3 150	4
31-Jul-18	Daimler	Germany	A2/A	3 000	3
2-May-18	Unibail-Rodamco	France	A2/A	3 000	4

Source: SG CIB Analytics, Bloomberg

- It was within the hybrid market that we witnessed the most marked development of 2018. S&P made a revision to its methodology which allowed for early refinancing of outstanding hybrids before year 5 and this catalysed a theme of hybrid tenders simultaneous to new hybrid issues. Telefonica was the first issuer to take advantage of S&P's new stance, issuing EUR 2.25bn hybrid notes in a dual tranche offering alongside a tender which saw EUR 1.78bn notes repurchased across a series of five EUR and one GBP outstanding hybrid instruments. This exercise allowed Telefonica to both reduce the average costs

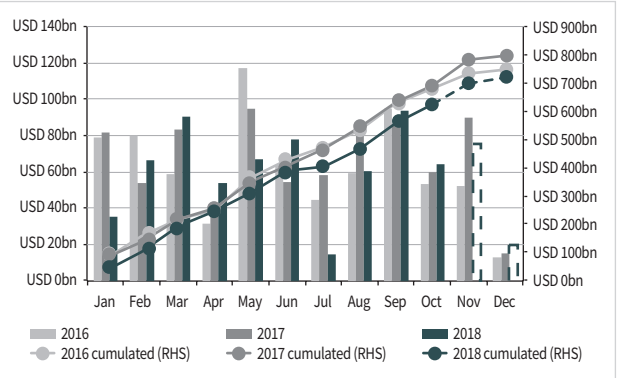
- of its hybrid stock and lengthen the average non-call tenor outstanding. The exercise was quickly followed by a similar exercise by Enel which achieved similar goals as well as took advantage of positive existing market conditions (SG Active Bookrunner on both transactions).
- Developments in the green bond space were subtle, with Danone issuing a EUR 300m social bond in March, pioneering a supranational and financial asset classes theme. Proceeds were earmarked to finance and refinance projects with positive social impacts, such as supporting responsible farming and agriculture, supporting local projects dedicated to empowering communities and social entrepreneurs, and providing tailored nutritional solutions to patients around the world. Elsewhere we saw the asset class open up to new sectors, with ALD Automotive printing a pioneering positive impact bond from the auto sector (Societe Generale acting as structuring advisor and bookrunner).
- ### 2019 forecast
- Societe Generale expects EUR 270bn in IG corporate supply in 2019, slightly up on 2018's expected total. This is anticipated to be made up of EUR 250bn senior and EUR 20bn IG hybrid supply. While the ECB's CSPP will be restricted to reinvestment, we do not believe this will have a material impact on supply volumes. Intra-day and intra-week volatility will increase, and spreads are indeed forecast to continue rising. In the long-term the market should nevertheless continue to grow. Higher rates have not led to a great rotation and ageing demographics continue to mean there is rising structural demand for fixed-income returns.
 - Redemptions are set to rise again, up 14% from EUR 124bn in 2018 to EUR 141bn in 2019 and this supports our thesis in terms of anticipating additional long-term growth. However, as highlighted by the size of redemptions (46% of supply in 2018), they are just one piece of the puzzle. Increased volatility in 2018 did result in a slowdown of disintermediation away from bank finance. But bank finance levels, while more stable, tend to lag public bond market levels and so in the long run, those bank financings will in turn be refinanced with bonds; and adding to this the market will find additional new issuers, i.e. the long-term trend of disintermediation remains intact. However, this increase, will come from the new base set in 2018, rather than from the previous years where 'easy money' from central banks catalysed a faster acceleration in the asset class than previously understood. And finally, although we are reaching towards the end of the economic cycle, M&A will continue to support the volume growth; or rather one could argue a competitive credit market will continue to support M&A! Thus, within the EUR IG corporate market, we forecast a rise in total volumes in 2019, from EUR 260bn to EUR 270bn.

USD MARKET

2018 review

■ As is the case with the EUR market, the USD primary market is poised for a decline in total issuance for 2018 versus FY 2017, as we expect total 2018 supply to come in at USD 720bn (-9% YoY). While there were many factors that led to this decline, the new US tax code had the most immediate and direct impact on new issue volumes: overseas cash was repatriated, albeit at competitive rates, and the tax benefit of issuing debt was reduced due to the lower nominal corporate tax rate. The impact of the tax changes on issuance were most apparent in the technology sector, as the likes of Apple, Microsoft, Oracle, Cisco, Qualcomm and Intel were noticeably absent in 2018. These six issuers represented just over USD 50bn in issuance in H1-17 - roughly 25% of total TMT issuance for the year. In addition, AT&T was absent after pricing two jumbo transactions in 2017 (USD 10bn and USD 22.5bn), while Verizon issued a meagre USD 1.8bn after its USD 11bn transaction in 2017. Total TMT issuance is down 60% year-to-date, a staggering number given that 2018's total includes Comcast's USD 27bn jumbo transaction to fund their acquisition of Sky.

Monthly breakdown of USD IG supply volumes in 2016-2018 (Nov. and Dec. forecasts)



Source: SG CIB Analytics, Bloomberg

■ Outside of TMT, utilities (-32%) and natural resources (-10%) were the other major supply laggards due to largely stable commodity prices, and the change in the tax landscape for utilities, which resulted in lower funding requirements in 2018. As predicted in our 2017 end-of-year brochure, the majority of the large integrated oil companies were absent yet again this year, with only Equinor (formerly Statoil), BP and Total raising relatively small sizes the September to November period. The majority of oil and gas issuance in 2018 originated from BBB midstream and E&P issuers as they looked to continue to capitalise on rising oil prices and increased oil infrastructure investment.

■ Healthcare marked the lone bright spot for primary issuance in 2018, currently running ahead of 2017 supply by 152% as a result of a number of a transformative, jumbo M&A deals. CVS issued USD 40bn in March (the third largest transaction ever) in connection with their acquisition of Aetna. Cigna then followed up with a USD 20bn deal in September.

These jumbo deals alongside a number of other M&A transactions from the pharmaceutical space drove healthcare issuance to its highest yearly total ever (USD 120bn). It was also interesting to note that CVS' jumbo trade from March was the best performing transaction of 2018 in the secondary market, further demonstrating why investor appetite for jumbo deals, even in periods of significant volatility, remains strong.

■ Another key factor for 2018 USD primary market issuance was the rate volatility experienced as a result of the Federal Reserve's continued path toward policy normalization. The Fed has now raised rates three times in 2018, the most recent of which came at its September meeting, setting the stage for a likely fourth rate hike in December.

■ Corporate yields reacted accordingly throughout the year, as the Fed continued to deliver upbeat assessments of the economic data and accelerated its rate hike timeline. This occurred in conjunction with the continued unwinding of the Fed's balance sheet. Corporate yields have increased by 90 bp (SG IG Corporate Index) with just under 80% of that widening attributable to the increase in risk-free government yields. Spreads, after reaching their tightest levels since 2007 in January of this year, have also widened; however, the overall increase in funding costs has clearly been more of a rates story rather than a fundamental deterioration in credit conditions.

■ Although the increase in rate volatility throughout the year has certainly led to narrower issuance windows, it is hardly a convincing culprit for the subdued supply. Unlike the smooth sailing in 2017 where markets seemed perpetually capable of absorbing high levels of new issue supply at minimal concessions, bouts of volatility in 2018 have certainly led to extended periods of higher new issue concessions and even subsequent days in February, March, and October where we saw no new issue supply due to poor market conditions. Despite this, even at the height of the equity volatility in February, the primary market still managed to re-open on decent footing, usually on the back of a high-quality frequent issuer acting as first mover with deals printing at reasonable new issue concessions (high single to low double digits). This decoupling between equity and credit markets was a consistent theme throughout the year with credit faring far better in the face of the numerous geopolitical hurdles. Given this dynamic, we would not attribute any material drop in issuance to volatility in 2018.

■ The final theme which remained one of the most consistent drivers of supply in 2018 (as was the case in the years prior) has been M&A. After digesting USD 220bn in M&A supply in 2017, we have already seen USD 215bn price in 2018. Issuers and investors alike continue to gain comfort with jumbo (USD 10bn+) transactions, as strategic mergers remain a core focus for companies while elevated premiums entice investors. Based on the strong performance of the majority of jumbo trades in 2018, and the dwindling number of meaningful

acquisition targets for the larger multinationals, it feels as though a record-breaking jumbo M&A transaction may be on the horizon. However, rising interest rates do present a potential headwind to M&A volume, as higher funding costs cut into margins; but we do not expect this to become material until further down the road. This November, we also saw Volkswagen's highly anticipated return to the USD market with their USD 8bn transaction – their first trip across the pond in over three years.

Top ten largest USD IG corporate deals in 2018

Issue date	Issuer	Country	Ratings at launch	Deal value (USDm)	Tranches
6-Mar-18	CVS Health	USA	Baa1/BBB	40 000	9
02-oct-18	Comcast Corp	USA	A3/A-	27 000	12
06-sept-18	Cigna	USA	Baa1/A-	20 000	10
20-juin-18	Walmart	USA	Aa2/AA	16 250	9
18-juin-18	Bayer	Germany	Baa1/BBB	15 000	8
14-nov-18	DowDupont	USA	Baa1/A-	12 700	8
23-mai-18	Vodafone	UK	Baa1/BBB+	11 500	6
13-août-18	United Technologies	USA	Baa1/BBB+	11 000	7
20-mars-18	Anheuser-Busch Inbev	USA	A3/A-	10 000	6
17-sept-18	Nestle	Switzerland	Aa2/AA-	8 000	6
14-mai-18	Dr. Pepper Snapple	USA	Baa2/BBB	8 000	6
07-nov-18	Volkswagen	Germany	A3/BBB+	8 000	7

Source: SG CIB Analytics, Bloomberg

2019 forecast

■ Societe Generale is forecasting supply to be marginally lower in 2019, coming in at USD 715bn versus USD 720bn forecasted for 2018. Rate volatility will likely persist as the Fed contemplates whether to increase the Fed funds rate above the neutral rate, at least for a short time, but we expect, as we saw in 2018, that this will pose more of a question of “when” to issue, rather than “if” companies will decide to issue. While corporate redemptions are up by a moderate amount in 2019 (USD 355bn vs. USD 300bn in 2018), a large portion of these redemptions are from cash rich technology companies. With funding costs on the rise and excess cash still available, we expect a large portion of these redemptions to be paid down, likely mitigating much of the redemption tailwind for supply.

■ We expect auto supply to be flat to slightly up as the sector refinances maturities in the face of secular headwinds. We anticipate healthcare to be the main laggard vs 2018 (due to the pace seen so far, this year) and consumer goods to be a prime candidate for an uptick in supply (due to possible M&A and increased redemptions). We expect the remaining sectors to be flat, but note that TMT has the potential to be a dark horse in either direction with M&A potential and regular jumbo issuers making up a large component of that sector.

■ With regard to timing, we are forecasting an uptick in Q1-19 supply vs the previous years as we expect, this year more than ever, that issuers will adopt the “why wait?” mentality and pull funding forward for fear of rising rates and less predictable spreads. It is also

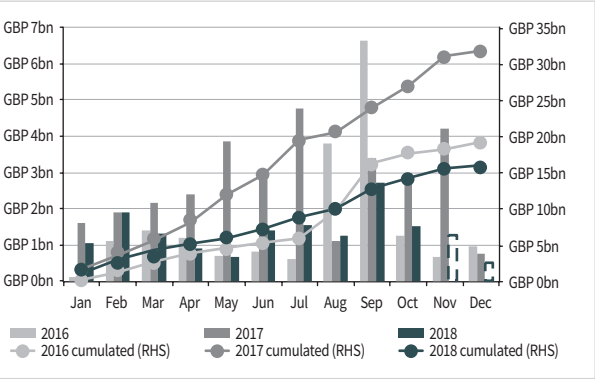
worth noting that SG Research continues to call for a mild recession to hit at the end of 2019/early 2020 which will likely lead to or follow some volatility in credit markets which could impact supply patterns as well. We do not foresee one specific event in 2019 as a significant catalyst for supply in either direction; however, we believe that geopolitical concerns will linger; most notably, trade, Brexit, and Italy.

GBP MARKET

2018 review

■ After a robust year of issuance in 2017, the highest since 2012, 2018 issuance is set to finish more in line with levels seen in 2014, 2015, and 2016. SG anticipates GBP 16bn of issuance for 2018, down ~48% from 2017's final volume of GBP 32.6bn.

Monthly breakdown of GBP IG supply volumes in 2016-2018 (Nov. and Dec. forecasts)



Source: SG CIB Analytics, Bloomberg

■ Unsurprisingly, UK domiciled issuers remained the core driver for GBP issuance in 2018; however, their participation was slightly down in 2018 compared to years prior as many issuers pulled their 2018 Q1 funding forward in 2017 to avoid potential volatility from Brexit negotiations. UK issuance is set to end the year at ~GBP 11bn (70% of total supply) vs ~GBP 20bn in 2017 (60% of supply). It is also worth noting that the BoE's asset purchase program underpinned the market until April of 2017 which drove issuance higher as funding costs remained favourable for issuers. Outside of the UK, German issuance remained steady in 2018 (GBP 2.7bn), primarily coming from the auto space, while issuance from the US was sharply down from years prior (£1bn in 2018, vs an average from the three prior years of ~GBP 3bn). This was primarily due to the reduction in M&A funding required by US corporates in the GBP market in 2018, with the exception being AT&T who issued a GBP 750m long 8-year in September. Outside of core jurisdictions, GBP issuance was rather muted in 2018 with only GBP 650m of issuance coming from outside of the UK, Germany, and the US This was also a laggard on total supply as we usually see ~GBP 2bn of issuance come from non-core jurisdictions.

■ Despite the muted issuance seen in 2018, market conditions have, overall, remained in decent shape. With the exception of some secular headwinds currently facing the auto space, conditions remained fair as transactions continued to come throughout the

year at reasonable new issue concessions. Investors shortened duration throughout the year with the 6-8-year part of the curve representing the sweet spot. As a result of investor preference for intermediate tenors, we saw some arbitrage materialize in the intermediate part of the curve relative to EUR; however, this arbitrage was generally only attainable in smaller sized transactions, owing to the annual themes of investor selectivity and price sensitivity.

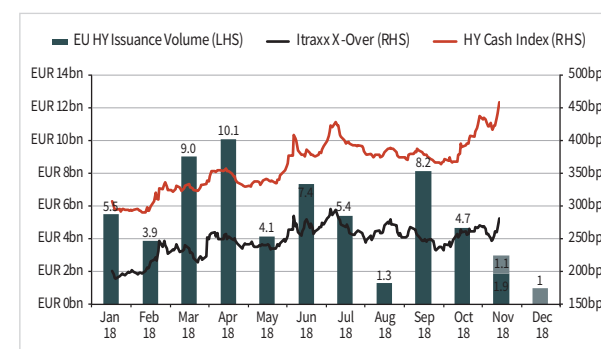
2019 forecast

- Societe Generale expects issuance to be slightly higher next year relative to 2018 as we are forecasting GBP 18bn of issuance for 2019. 2019 IG GBP corporate

High Yield

2018 European market overview

YTD high yield volumes (Europe: EUR and GBP)



Source: Bloomberg, SG CIB Analytics

Weaker and increasingly window-driven HY primary market

- A combination of concerns around the US-China trade war, rate hikes by the Fed, tapering of quantitative easing by the ECB and the Italian political crisis have all created a more volatile and window-driven market environment throughout the course of 2018.
- After a continuation of the accommodative market environment during the first few months of 2018 which saw issuance levels broadly tracking that of 2017 (albeit slightly lower), primary volumes have been down since May as negative news flow dampened sentiment. Total issuance volumes in all currencies 2018 year-to-date (mid-November) are EUR 73bn eq., 23% down on 2017 year-to-date (EUR 95bn eq.).

Considerable pick-up in primary LBO and M&A activity

- This year has seen a significant increase in LBO and M&A related issuance. Together they have accounted for 33% of total volumes 2018 year-to-date. LBO activity has shown a marked increase from 4% of total market volumes in 2017 to 17% 2018 year-to-date.
- We have also seen the return of jumbo leveraged buy-out (LBO) deals, such as those for Flora Foods, Refinitiv, and AkzoNobel specialty chemicals, all financed through a mix of bonds and loans. This year also saw the largest ever Italian LBO by Rossini Sarl, with the EUR 1.3bn proceeds being used to finance the

redemptions are up 28% vs 2018 (GBP 14bn in 2019 vs. GBP 11bn in 2018), but are down slightly from 2017 (GBP 15bn). We expect German and UK issuance to remain steady with peripheral issuance normalising. The US remains the biggest wildcard and represents the greatest upside risk to our forecast. Issuance from the US will be dependent on M&A activity; however, this prospect is certainly muddled by ongoing Brexit negotiations. Apart from Brexit, we expect geopolitics to have a much lesser impact on the GBP market relative to USD and EUR. The BoE also likely will not be a headline driver next year as we expect any action to be tempered, at least until further clarity is provided on Brexit.

majority acquisition of Recoradi SpA by CVC. These four deals alone have accounted for 24% of LBO-related issuance in 2018 year-to-date.

Repricing of risk

- After a progressively tight pricing environment in 2017, this year has been the opposite, with an overall widening in coupons and spreads over the course of 2018. The high yield cash index has widened by around 150 bp; starting the year at 340 bp, compared to its current level of around 490 bp.
- Against this backdrop, we have seen an increasing mismatch in pricing expectations between issuers and investors. This has contributed to a slowdown in refinancing transactions and around 10 deals being postponed 2018 year-to-date.
- Over 30% of issuance has come to market with a coupon of at least 6%, versus less than 15% in 2017, whilst around a half of this year's primary supply has come from single-B rated issuance.

Continued competition from the term loan market

- Similar to last year, the European high yield market continues to face strong competition from the term loan market given the relatively attractive pricing and borrower-friendly terms on offer (including the absence of non-call features). In the LBO space, we have seen the downsizing/cancellation of senior secured bonds in favour of term loan B, as well as the return of second lien tranches, often at the expense of subordinated high-yield bonds.
- In addition, in 2018 we have also observed growing activity by direct lenders, spurred by an increase in terms of their target markets and their ability to allocate more and more capital to deals.

Significantly lower GBP issuance volumes

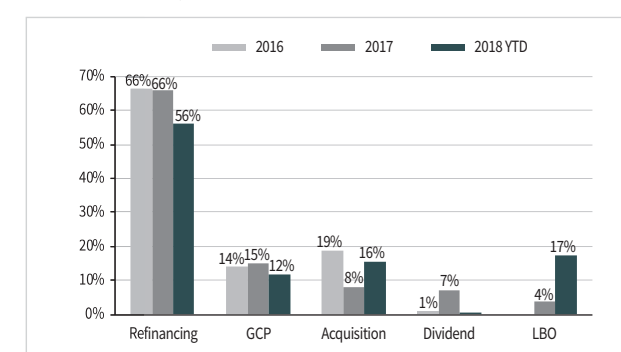
- After a record year in 2017, there has been a significant drop in the amount of sterling issuance this year. This has been impeded by a lack of supply after the wave of refinancings last year, as well as ongoing uncertainty around Brexit and negative news flow around the UK retail sector – a historically large issuer of sterling-

denominated high yield bonds. A total of EUR 5bn eq. has been issued 2018 year-to-date in the GBP market, which is less than half the EUR 12bn eq. for 2017 year-to-date.

Investor push back in terms of pricing and documentation

- We have witnessed increased push back by investors with respect to more aggressive documentation, with changes to covenant packages being made post-launch. Examples include the June deals for Cirsa and TDC, both of which underwent significant redrafting including changes to EBITDA add-backs, removal of portability features and pulling back on generous restricted payments provisions.
- Investors have commanded a premium for more aggressive deals, with issuers paying the price. Investor feedback on UK-based jewellery retailer Arium's GBP 265m senior secured notes highlighted the aggressive covenant package and eventually the deal priced at 8.50% versus initial talk of mid-7s, following a number of revisions to documentation.

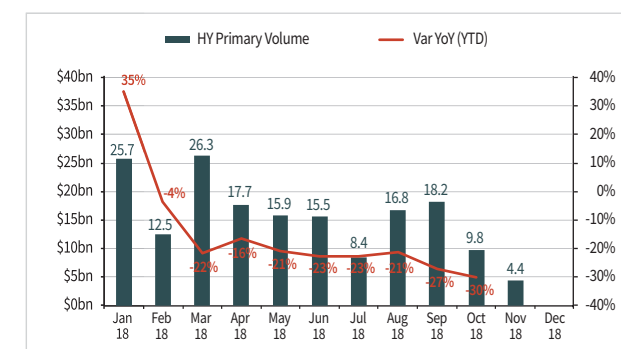
Europe HY primary issuance: use of proceeds (2016-2018 YTD)



Source: SG CIB Analytics

2018 US market overview

YTD high yield volumes (US: USD)



Source: SG CIB Analytics

Primary issuance trends

- The US high yield primary market faced a volatile backdrop in 2018 year-to-date owing to concerns around the effect of US-China trade tensions on global economy, geopolitical pressures in Europe and emerging markets, recent volatility in equities due to a rising rate environment as well as midterm elections in the US.

- From January's strong start that saw issuance volumes above 2017 levels (USD 26bn vs. USD 19bn), primary volumes have been consistently behind last year's levels, reaching multiyear record lows. At the end of Q3, after a September that recorded its lowest tally since 2011, 2018 year-to-date volume stands at USD 171.1bn, 31% behind 2017 year-to-date volumes (USD 249.7bn)

Window driven market

- Macroeconomics concerns and interest rate movement have caused the US HY market to change from one that was open 24/7 until late January 2018 to a window driven market since then. Issuers have had to pick and choose when to access the market in order to execute successfully and efficiently. As the Fed has hiked in the US three times this year, with a possible fourth rate move coming in December 2018, we have seen the UST 10Y rise above the high 2.00% level it was for most of 2018 and peak as high as 3.26% in October.
- Also contributing to the window driven nature of the market is the ongoing trade tension and the volatility that has risen from the dispute between the US and China. Not only have the tariffs implemented on both sides fuelled periods of volatility, but also have caused worries of a possible global slowdown, as the IMF cut its global growth forecast to 3.7%, down 0.2%. This shift to a selective window of execution market has seen eleven issuers withdraw deals from the market so far this year.

Commodity prices effect on Primary Market

- WTI and Brent had experienced a strong rally in 2018 peaking at USD 76.4/bbl and USD 86.3/bbl, respectively. Supply concerns as the US re-imposed sanctions on Iranian oil exports and a possible Emerging market slowdown put worries of the global demand for crude were driving forces for the gains in the commodity. As the US has now issued waivers to countries to continue buying Iranian oil exports, we have seen a dip in crude prices. The rise experienced during most of the year trickled into the US high yield energy primary market where sector issuers have taken advantage of the conducive commodity environment by pricing USD 39.7bn of supply 2018 year-to-date compared with a 2017 year-to-date energy supply of USD 33.6bn.
- The commodity environment has had a reverse effect on the Metals & Mining high yield market. Both precious and base metal prices have noticeably dipped this year leaving the sector issuance at USD 6bn for 2018 year-to-date across 10 deals, compared to 2017 year-to-date levels of USD 13bn. That represents a 56% dip in issuance for Metals & Mining.

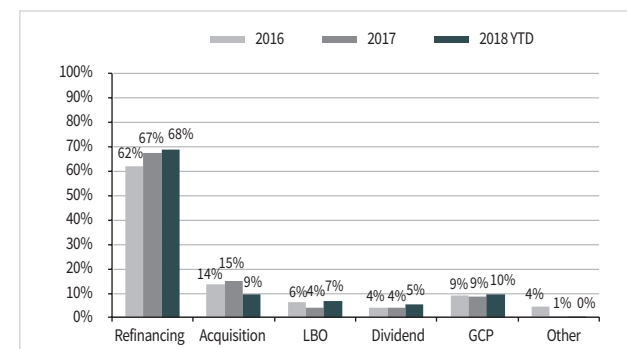
The emerging market slowdown

- Emerging market (EM) exposed corporates have been a continual source of supply in US high yield, but with a downward shift in sentiment this year the primary issuance has not been in line with the past. In 2017 year-to-date the issuance for EM-exposed credits in the dollar HY market was USD 86bn, while 2018 YTD the supply dropped to USD 52bn.

Use of proceeds in 2018 trends vs 2017
(Refi vs LBO vs. acquisitions, etc.)

- In 2018 year-to-date, issuers' refinancing needs are still driving total market issuance as 68% of proceeds have been used for refinancing purposes (vs. 67% in 2017). After a busy September for LBO/M&A driven bond activity (including three jumbo-issuances from AkzoNobel, Refinitiv and Envision Healthcare), LBOs represented 7% of total volumes (USD 11.6bn priced across 14 deals) vs. USD 10.9bn raised across 21 deals in 2017 year-to-date.

US HY primary issuance: use of proceeds (2016-2018 YTD)



Source: SG CIB Analytics

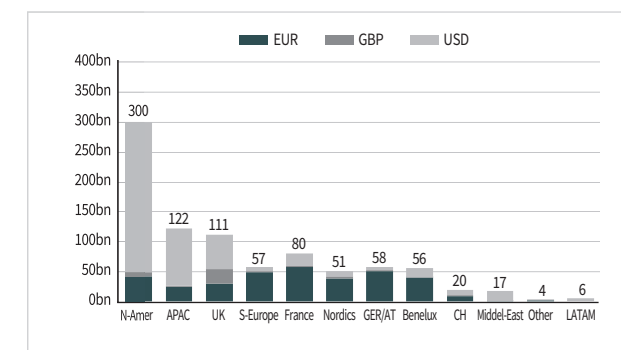
2019 forecast

- We expect the European market to be slightly down in terms of volumes next year and to continue to be dominated by stronger credits and well-known issuers. These trends should be driven by:
 - i. Potential slowdown in economic activity across Europe (implying less capex and spending)
 - ii. A rising interest rates environment (detering opportunistic refinancings)
 - iii. Continued bank liquidity and competition from the loan market
 - iv. Slight pick-up in GBP activity post-Brexit
- In the US market, we expect issuances to slightly pick up in terms of volume next year. The HY primary market should be driven by:
 - i. A rising interest rates environment
 - ii. Commodity prices, specifically crude oil and metals
 - iii. Window driven nature of the market as issuers will have to be timely in execution
- In terms of our volume forecasts for 2019, we expect to reach:
 - i. EUR 53bn in EUR-only issuance, down from a projected EUR 58bn for full-year 2018
 - ii. GBP 7bn in GBP-only issuance, up from a projected GBP 6bn for full-year 2018, and
 - iii. USD 220bn in USD-only issuance, up from a projected USD 190bn for full-year 2018.

FINANCIAL INSTITUTIONS

- With central banks on their way to policy normalisation, the gradual orderly unwinding of quantitative easing arrived in conjunction with geopolitical tensions prompting an escalation in volatility in 2018. Risks and uncertainties grew throughout the first months of the year amid correcting stock markets and protectionist quarrels across the globe. Against this backdrop, signs of slower growth raised questions about the durability of the synchronised global expansion.
- Consequently, financial institutions had to navigate challenging bond primary markets throughout most of the year, with more elevated execution risk and more selective investors but healthy levels of supply amassed in intermittent periods, while the secondary market saw a widening across the capital structure.
- Overall, FI primary supply in 2018 was 5% below last year. Focusing on senior unsecured and covered bond activity, supply was down 7% with marked differences across markets. In EUR, primary volumes increased vs 2017 (+5%) thanks to the strong activity in covered bonds and an overall resilient senior unsecured market. In USD, we saw a noticeable decrease in volumes (10%) versus what was an elevated 2017. Despite European banks reliance on USD short term and wholesale funding, a deterioration in the cross-currency basis versus EUR and lower US bank funding needs dampened overall supply. As for GBP, the segment remained relatively unchanged with domestic issuance continuing to support volumes. In terms of debt instruments, issuance of senior non-preferred/HoldCo debt eligible to meet Total Loss Absorbing Capacity (TLAC) and Minimum Required Eligible Liabilities (MREL) requirements was below expectations as the result of more volatile markets, delays in the adoption of senior non-preferred (SNP) laws in several jurisdictions and uncertainties regarding the subordination requirement for MREL. The covered bond market was active throughout the year, benefiting from the support from the CBPP3 covered bond purchase programme in Europe and its more resilient nature.

Overall currency issuance distribution by region in 2018 YTD (EUR bn eq.)

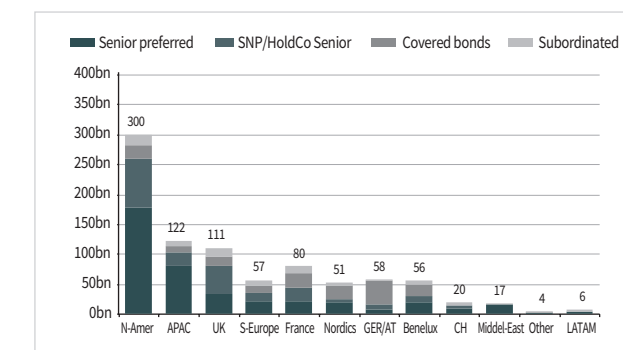


Source: SG CIB Analytics, Dealogic

All issuers, amount > EUR 250m eq., maturity > 18 month

- As the year progressed, the sources of political and economic risks that fed directly into financial markets were varied:
 - Central banks alterations to monetary policy came to the fore as the ECB adopted a more transparent communication of its gradual removal of accommodation before the end of the year keeping markets relatively docile in the face of interest rate pressure. In contrast, the Fed adopted a more variable strategy due to concerns about a substantial slowdown in US economic growth, the trade war and inflation.
 - Following the elections in March, attempts by the populist Italian government to break free of the corset of EU fiscal rules took centre stage threatening a re-run of the euro-area sovereign debt crisis, albeit probably in a much more punitive and less localised form.
 - Europe's other crisis, Brexit, also became more threatening. The risk of a disastrous no-deal exit perhaps being played up by all sides increased as negotiations continued. However, as Brexit talks reach a crescendo, there are at last some signs of greater flexibility from both sides.
 - An escalation in US-Turkey tensions, heightened by gaping disparities between US versus Turkish foreign policy objectives and unpredictable personality-driven politics led to a diplomatic stand-off that added pressure to emerging markets and potentially large economic repercussions for Turkey.
 - But the most important and dangerous risks stemmed from policymaking. Top of the list, the protectionist policies of the Trump administration, embedded in a focus on China and possibly Europe, was instrumental in contributing to an overall risk averse environment.

Overall asset class issuance distribution by region in 2018 YTD (EUR bn eq.)



Source: SG CIB Analytics, Dealogic

All issuers, amount > EUR 250m eq., maturity > 18 month

- Financial institutions' funding activity in 2018 was particularly impacted by the volatility in interest rates, cross currency basis and overall widening in credit spreads – the relative attractiveness and suitability of different debt instruments, currencies and tenors has varied throughout the year. Volatile environment and consequently more limited issuance windows have demanded flexibility and readiness from issuers to swiftly move ahead when opportunity arose.

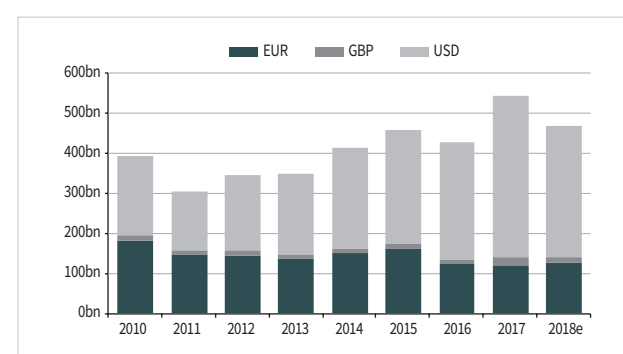
Senior preferred / Senior OpCo market

2018 review

- The expectation in 2018 was for banks to be concentrated on issuing MREL/TLAC eligible debt, mainly in the form of senior non-preferred (SNP) and senior HoldCo debt. In that context, volumes of Senior preferred (SP) and Senior OpCo debt decreased by 16% in 2018 but nevertheless banks remained active in this segment throughout the year.
 - The implementation of SNP laws was delayed in several jurisdictions, limiting the possibility for issuers to issue under this format.
 - Some banks were already well advanced in SNP/ HoldCo and turned their attention to SP.
 - Given the overall widening credit environment, many issuers looked at the more attractive relative cost of issuing higher rated SP for funding purposes, often meeting with good demand as investors looked at senior preferred / senior OpCo as a flight to quality trade.
 - The senior preferred / senior OpCo market was however not immune from increased volatility, which affected the amounts of issuance, since we experienced brief market closures (or periods of sub-optimal issuance conditions) at times of heightened risk aversion. For instance, several issuers had to downsize their funding plans, notably in Southern Europe.
- Overall, senior preferred / senior OpCo issuance in EUR slightly increased in 2018 (+6%), predominately supported by an increase in French, Benelux and North American volumes (by around EUR 4bn in each region, based on YTD volumes). Despite the Italian turmoil, Southern European issuers – predominantly in Spain – were the most active in EUR with 16% of volumes however down compared with 2017.
- In USD, North American and Asia Pacific issuers dominated with a 57% and 24% market share respectively (based on YTD volumes) but overall, their issuance levels were significantly down compared with 2017. This, combined with less favourable cross-currency developments versus EUR which weighted on European issuance, led to a marked decrease in senior preferred / senior OpCo volumes (-22%).
- The GBP market also saw a significant decline in activity with volumes 67% down YoY, this being predominately accountable to UK issuers whom looked elsewhere for deeper pools of liquidity.

- As the year continued, we witnessed issuers adapting their funding strategies and their sequencing of trades by front running their covered bond issuance plans in H1 ahead of diminished ECB support, while opportunistically accessing less defensive formats in periods of market stability.

Senior preferred volumes (EUR bn eq.) Only a marginal decrease in EUR volumes with the decreased skewed towards USD and GBP



Source: SG CIB Analytics, Dealogic
All issuers, amount > EUR 250m eq., maturity > 18 month

- With more subordinated asset classes shut for intermittent periods throughout the year, senior preferred issuance was largely opportunistically frontloaded into H1, with bullet structures evenly distributed between the shorter and longer dated tenors in EUR, contingent on the prevailing conditions and wider sentiment.
- In GBP, shorter dated tenors were favoured, with floating rate notes often utilised as part of a dual-tranche strategy in USD.

Regional focus

Western Europe

- While overall volumes in 2018 are expected to be down from 2017, regional trends have varied: French and Benelux issuers have increased issuance while other regions reduced it – particularly in USD.
- Despite Italian political turmoil and heightened volatility, Italian volumes were relatively resilient with EUR 14bn equivalent of issuance split across EUR and USD.
- German and Austrian issuers were much less active this year across currencies predominately due to all senior issuance in Germany being de facto SNP and the possibility to issue SP only introduced in July 2018.
- With the approaching promulgation of SNP laws in Sweden, Denmark and Finland, Nordic issuers were active to a lesser extent this year with only EUR 13bn vs EUR 16bn in 2017 with Swedish issues comprising the bulk of issuance year to date. USD Nordic volumes also declined significantly by 49%.

CEEMEA

- In CEEMEA, senior preferred EUR volumes were down year-on-year (EUR 17bn in 2018 vs. EUR 23bn eq. in 2017). Volumes came predominantly from Poland for the second year in a row. In USD, volumes were predominately focused towards the Middle East with Turkey remaining active despite the escalation in US tensions.

Americas

- After Western Europe, North America was the second most active region in the EUR senior unsecured market this year with 13% of total issuance and volumes up in absolute terms (from EUR 11bn to EUR 15bn YTD).

APAC

- Similar to last year, we saw sustained activity in EUR but a significant decrease in USD as Japanese issuers focus was directed predominately towards HoldCo funding.

2019 forecast

- Looking forward, we expect the current prominent market themes to continue into 2019, with regulatory developments and central bank policies likely to drive market sentiment. The former will remain at the forefront of financial institutions' capital planning and funding needs while the latter will continue to impact the broader environment and cost of funding.
- Against a background of monetary policy normalisation and higher capital requirements, we expect banks to front-load their funding plans to continue to benefit from the current relatively low-rate and spread environment. Absent of a new TLTRO programme, many European issuers will also focus on refinancing parts of TLTRO II funding. The final maturity of TLTRO II is in 2020-21, but potential prepayments will increase in 2019 due to the impact on Net Stable Funding Ratios (NSFR): TLTRO II amounts will be recognized for NSFR at 50% when

maturity gets shorter than 1 year and down to 0% when it is below 6 months. While the solutions to address TLTRO II refinancing remain issuer specific, it seems likely that part of the repayments will be refinanced through wholesale markets (including senior preferred). Peripheral banks will be under scrutiny, as they represent ~60% of TLTRO II.

- As issuers evaluate the refinancing options of TLTRO II in conjunction with the impact on different metrics:
 - EUR volumes are set to increase (from EUR 125bn in 2018 to EUR 130bn in 2019). This, coupled with the expectation that European banks' total assets will grow in 2019, should lead to overall compounding in volumes. However, this gradual balance sheet growth alongside a measured shift towards SNP/ HoldCo funding for a higher number of banks will mediate the increase. Of note, speculation remains surrounding the possible implementation of a supplementary TLTRO in replacement of TLTRO II, that could lead to a significant contraction in expected volumes.
 - In USD, we expect volumes to decrease as more European banks start focusing on building their MREL/TLAC layers. In addition, senior issuance from Canadian banks is now bail-inable and accounted in the Senior non-preferred / Senior HoldCo segment. Funding needs from US banks appear to be stable while we can anticipate an increase in issuance from APAC issuers after a sharp decrease in issuance in 2018. Overall, we are of the view that the USD market will continue to remain a reliable source of funding and expect total volumes of USD 360bn in 2019 versus USD 375bn in 2018. The forecast is also contingent on the favourability of the EUR/USD basis swaps and the development of the arbitrage throughout the year.
 - Finally, in GBP we forecast stable volumes in 2019 despite domestic supply being focused towards HoldCo / SNP, with GBP 11bn expected next year vs GBP 12bn in 2018.

Senior non-preferred / Senior HoldCo market

2018 review

- As expected MREL and TLAC requirements played a central role in banks capital and funding planning, and 2018 was spent further building on the required levels as more European banks received their MREL targets. Senior non-preferred / Senior HoldCo bonds now represent a well-established and growing asset class.
- SNP legislation was introduced in Italy in January 2018 enabling UniCredit to launch the first Italian SNP bond. Other jurisdictions such as Austria or the Netherlands have progressed towards the implementation of their SNP laws, having in mind the end of 2018 deadline for the transposition into national law of the EU directive on the harmonization of the bank creditor hierarchy.
- Despite the promulgation of SNP national laws in new jurisdictions though, many did not materialise as expected which led to established banks remaining the key issuers (i.e. French and Spanish). Also, with

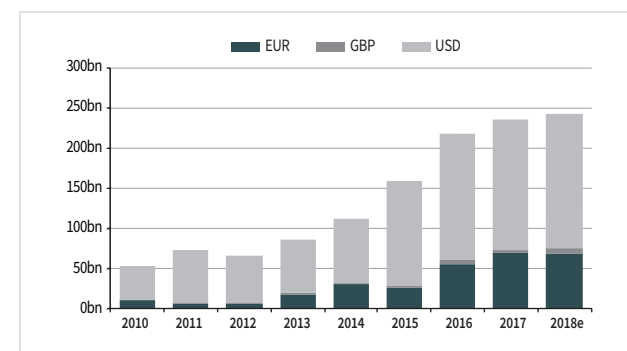
question marks still surrounding the subordination requirement for MREL debt, many issuers opted to avoid the ambiguity of an anticipatory issuance.

- National champions such as Nordea, Danske Bank or Rabobank all issued their inaugural bonds throughout 2018 in anticipation of the finalisation of the legislation in their respective jurisdictions, with pricing rationales varying per transaction as the number of referenceable instruments increased.
- Numerous European issuers have begun their funding in the EUR market before accessing the USD. Despite the deterioration of the cross-currency basis swap, the outperformance of USD credit has improved access to this deep pool of liquidity.
- Of note, in 2018 the SNP market further developed into more exotic currencies, notably targeting Asian accounts (e.g. AUD, JPY), broadening lender investor

base while offering tighter pricing versus EUR and USD. In terms of tenors, investors' sweet spot was in intermediate maturities due to the inherent volatility, with established issuers looking to further build their curves, exclusively in bullet format for SNP apart from Nationwide as other European issuers are awaiting clarity on whether such feature would be allowed by the regulator. Of note, in France a decree considering callable structures as "non-structured" was published. While maiden issuers usually accessed the 5Y tenor, established names either went for longer duration to create a curve or FRN format driven by cost arbitrage vs. Fixed, with the more established French and Spanish issuers the most active. Following their inaugural transaction new market entrants typically combined FXD and FRN tranches to maximise size in USD and build up a diversified MREL buffer.

- Overall, SNP/HoldCo volumes in 2018 were lower than anticipated but still posted an increase of 28%. Volumes in EUR are marginally flat d unexpectedly, with EUR 69bn in 2017 to EUR 68bn in 2018, as the moderate increase European banks' issuance was more than offset by the sharp reduction in US banks' volumes. In USD, volumes increased from USD 176bn in 2017 to USD 190bn in 2018. While US banks were significantly less active in their own currency, having already reached their regulatory requirements starting in 2019, supply coming from European banks increased substantially notably from UK banks and, to a lesser extent French, Benelux and Nordic issuers. In GBP, supply increased to GBP 7bn in 2018 from GBP 3bn in 2017 primarily thanks to higher issuance from UK banks.

Senior non-preferred/HoldCo volumes (EUR bn eq.) – Only a marginal increase year-on-year rationalised by lower US Bank HoldCo in 2018 as the lenders have built up enough bail-in eligible bonds



Source: SG CIB Analytics, Dealogic
All issuers, amount > EUR 250m eq., maturity > 18 month

- Despite complying with Fed's requirements, US banks were still the most active issuers of TLAC/MREL-eligible debt across currencies with 45% of total USD volumes, 22% of EUR volumes and 16% of GBP. They were followed by UK banks which accounted for 23%, 12% and 71% of USD, EUR and GBP issuance respectively and French banks which represented 22% of EUR volumes but only 6% of US issuance. Outside of Europe, Asia Pacific accounted for 14% of USD supply.

Regional focus

Western Europe

- As has been the case in recent years, SNP/HoldCo funding in Western Europe was predominately skewed towards USD as opposed to EUR with France, the UK and Germany/Austria leading the way.
- For inaugural issuers in the Nordics and Benelux volumes were proportionately distributed between EUR and USD with issuers electing for a dual tranche strategy in USD to maximise size.
- Despite the turbulence, Southern Europe remained active predominately supported by Spanish issuers with BBVA and Santander accessing the market across currencies. Following developments surrounding the Italian crisis, there was only one Italian non-collateralised issue since May.
- In the UK, we have witnessed an acceleration in funding needs with almost double the issuance of 2017 in Senior HoldCo – particularly in USD – as issuers look to prefund ahead of a possibly turbulent Q1 2019 with Brexit in March.
- Following the clarification of their MREL requirements for January 2021, Irish issuers were notably active across EUR and GBP.
- The market also evolved with the first green/sustainable SNP bonds from established issuers out of France, Germany and Spain.

America

- As previously alluded to, total volumes across USD, EUR and GBP decreased vs. 2017, following a few years of healthy supply as US banks sought to meet their TLAC requirements in 2019. Total volumes were down by EUR 12bn and GBP 1bn, with the bulk of the decrease in USD which shrunk by USD 28bn.
- As expected, supply was predominately in dollars across callable structures with the additions of an FRN tranche to maximise size. Historically one of the heaviest issuers of HoldCo debt Goldman Sachs volumes were down approximately 36% year-on-year.

APAC

- Senior HoldCo supply saw a marginal volume increase year-on-year.
- Similar to 2017, the HoldCo format was used almost exclusively by Japanese issuers with USD by far the main currency of choice. However, Japanese issuers looked to further established their footprint in the EUR market with a slight increase year-on-year to EUR 3.4bn.

2019 forecast

- Regulation will remain a dominant theme next year as banks continue to focus on meeting their MREL/TLAC requirements. Unlike 2017, funding and liquidity circumstance were affected by various headwinds throughout this year which significantly impacted issuers ability to access the market at times. In the absence of such a contagion and with further clarity

of capital requirements, we estimate an overall significant increase in issuance volumes as the market further matures and overall bank asset growth intensifies. The leading drivers for the increased volume projections is the establishment of new core markets in the Netherlands, Nordics and Canada alongside the already established regions.

- In EUR, we are forecasting an increase in volumes from EUR 68bn in 2018 to EUR 90bn in 2019, as further jurisdictions adopt the SNP legislation and Southern European regain better access to the market. UK banks volumes will continue to support HoldCo issuance as issuers further progress towards their TLAC/MREL requirements. We could also see Canadian issuers tap the EUR market to issue senior bail-inable debt.

Covered bond market

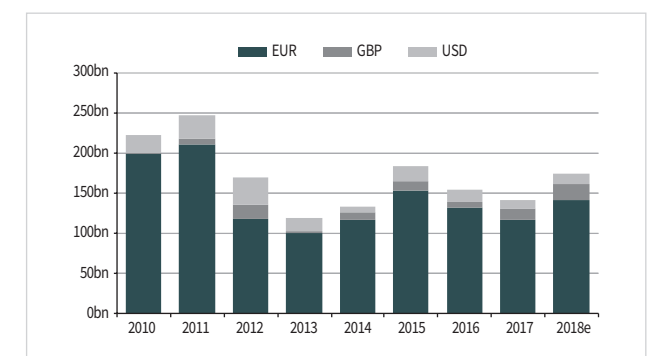
2018 review

- The covered bond market saw a sharp increase in activity in 2018 with volumes up 19% across the three currencies. Ahead of the anticipated gradual decrease in the ECB's quantitative easing (QE) programme and lower CBPP3 purchases, lenders looked to front load their funding programmes and access the market in H1. As expected, the acceleration in supply was predominantly because of the net asset purchases under the asset purchase programme (APP) only continuing at EUR 30bn monthly pace until the end-September 2018. Thereafter, the programme was subsequently reduced to EUR 15bn/month until end-December 2018, after which net asset purchases will end.
- In addition, with the increased rates volatility and wider risk aversion, other funding sources were shut at times pushing banks to raise funding in the more resilient covered bond market while waiting for a more favourable window to issue riskier assets. Throughout the year Covered bonds proved to be a haven of stability vs other asset classes. The anticipated end of QE and rates volatility signalled a repricing of covered bond spreads but this repricing was however limited compared to other debt instruments. The degree of spread widening and consequential lack of primary supply was however intensified in the peripheral space across the curve due to spill-over effects from Italian political turmoil.

- Like in previous years, EUR represented by far the largest segment of the covered bond market with EUR 141bn expected in 2018 (from EUR 117bn in 2017) In USD, supply was relatively stable (USD 13bn expected in 2018 vs USD 12bn in 2017) while in GBP supply increased substantially (GBP 18bn expected vs GBP 11bn in 2017).

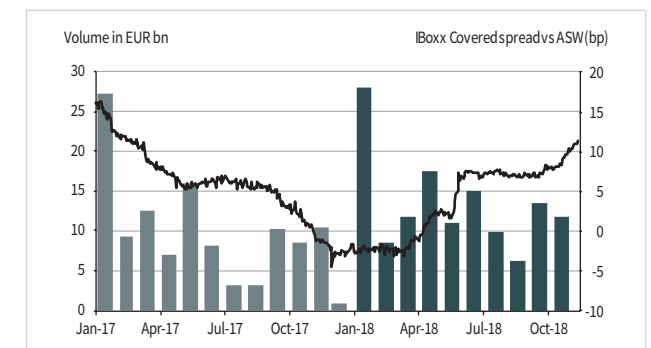
- In USD, we expect to see an increase from USD 190bn in 2018 to USD 240bn predominately driven by the introduction of key core jurisdictions to the market. US banks funding is likely to be relatively stable but the introduction of Canadian bail-inable senior debt and expected increased issuance from European banks will have a positive impact on supply.
- GBP supply is likely to increase in 2019 mainly as function of domestic funding as UK banks continue to develop their capital buffers primarily in HoldCo format. We expect volumes to increase to GBP 8bn vs GBP 7bn in 2018.

Covered bond volumes (EUR bn eq.) – Surge in primary supply on anticipated decreased technical support despite window driven environment



Source: SG CIB Analytics, Dealogic
All issuers, amount > EUR 250m eq., maturity > 18 month

Covered bond supply was concentrated in H1 in 2018, with the wider sentiment impacting spreads following a strong Q1



Source: SG CIB Analytics, Markit iBoxx, Dealogic

Regional focus

Western Europe

- Germany-Austria, France, Benelux and the Nordics accounted for 73% of the year to date volumes in EUR, overall in line with 2017 but with some differences. Germany-Austria and Benelux have significantly increased their supply while Nordics issuers were less active this year.

- Southern European issuers have further reduced their relative issuance amounts with a decrease of EUR 2bn year-on-year. This is in spite of large redemptions in the region, causing a substantial negative net-supply for 2018.
- UK volumes increased sustainably vs. 2017 with a slight increase in EUR and a large increase in GBP volumes up to 31% predominately due to the favourable pricing.

CEEMEA

- As was the case last year, in 2018 we only saw a single EUR 500m of supply in this region, which came from the Polish PKO Bank in CPT format.

America

- 100% of the Northern American activity in the EUR covered bond market came from Canadian issuers taking advantage of the lower cost and deeper market compared to the USD market.
- Canadian issuers continue to benefit from strong demand for EUR-denominated non-CBPP3-eligible paper.
- However, Canadian activity has not been limited to the EUR market with numerous forays into both the GBP and USD market with the USD market continuing to provide optically much higher coupons which are attractive to investors. Canadian issuers maintained their pace of issuance in GBP with six new covered bond issues from five different issuers.

APAC

- Similar to last year Australian and New Zealand banks activity was more skewed towards the EUR markets albeit with a decrease in volumes with EUR 4bn so far in 2018 compared to EUR 6.25bn in 2017.
- Singaporean banks remained present this year with six issues across EUR and GBP, totalling EUR 2bn equivalent vs EUR 2.7bn in 2017 with UOB and OCBC the main participants.
- 2018 also saw the first issuance from a Japanese bank with SMBC printing their inaugural contractual-based covered bond.

2019 forecast

- Covered bond supply should increase next year thanks to the combination of growing mortgage lending in some countries, new issuers coming to the market and higher volumes of redemptions compared with 2018. In addition, volumes could be positively impacted by the need to refinance TLTRO II redemptions, the magnitude of which will be dependent on a combination of issuers' NSFR ratios alongside liquidity needs.
- The major development for the covered bond market next year will be the expected end of ECB's CBPP3 purchase programme. Although assumption is the ECB will continue to reinvest maturing CBPP3 bonds in the covered bond market, the end of CBPP3 should lead to a further repricing of spreads. In turn, this is likely to attract real money investors again, whom previously had lowered their exposure to this asset class. That said, the degree to which real money investors will return to the covered bond market will depend on the relative value against other fixed income assets as well as the direction of rates. All in all, less involvement of the central bank should lead to higher new issue premiums and pricing that better reflects differences between the various jurisdictions and the credit profiles of the issuers.
- Overall volumes are projected to increase to ~EUR 174bn eq. in 2019 vs. EUR 141bn eq. in 2018.
 - In EUR, we expect volumes to move from EUR 141bn in 2018 to EUR 145bn in 2019 as redemptions increase and some issuers look to minimise the cost of refinancing TLTRO (NSFR). Volumes from non-European issuers such as Canadian and Australian/New Zealand banks are expected to increase but this will be dependent on the evolution of the cross-currency basis.
 - In USD, we also expect to see an increase, from USD 13bn to USD 15bn, as volumes from Canadian, Australian/New Zealand and potentially Nordic banks should pick up after a rather subdued activity in 2018.
 - Finally, in GBP, we expect volumes to go marginally down from GBP 18bn in 2018 to GBP 16bn in 2019, due to the elevated issuance this year as domestic banks looked to pre-fund ahead of Brexit and due to the favourable pricing as they looked to secured funding alternatives to the Term Funding Scheme (TFS).

PUBLIC SECTOR

OVERVIEW

- The EUR SSA sector (Sovereigns, Supranationals and Agencies) remained well supported in 2018 with the Italian political jitters and the softer economic outlook for the euro area even reinforcing the bid for quality and acting as a counterweight to the announced end of QE. In this context, SSA borrowers continued to benefit from attractive funding conditions with yields and spreads at very tight levels. Going into year end, the SSA market showed some signs of nervousness with investors increasingly questioning valuations in the context of the end of QE which led to some softness in the most expensive curves. In this environment, Green bonds demonstrated a stronger resilience to volatility, thanks to a solid and growing investor base.

EUR MARKET

2018 review

Supportive funding conditions in the context of the lower SSA supply despite the ECB tapering and the return of the sovereign risk, though contained to Italy.

- Sovereigns' primary activity decreased versus 2017 on the back of lower syndicated supply (EUR 132bn expected vs. EUR 152bn in 2017) while auction volumes remained stable. Agencies and Supranationals followed the same trend with lower funding needs overall (EUR 503bn eq. vs. EUR 533bn eq. in 2017) and volumes skewed to the unique currency with 43% of total volumes as of 31 October.
- The ECB continued to be a key player in 2018, bringing support to the SSA sector despite gradually exiting from the PSPP. As such monthly net purchases stand at around EUR 23bn versus EUR 54.9bn in 2017.

EUR public sector issuance volumes 2018e vs. 2017			
Sector	Issuance volumes in 2017 (EUR bn)	Expected realised issuance volumes in 2018 (EUR bn)	2017 vs. 2018e volumes (%)
Sovereigns	930	909	-2,2%
Agencies & Supranationals	235	203	-13,4%
Local authorities	53	56	6,7%
Total Public Sector	1 217	1 168	-4,0%

Source: Based on Societe Generale Cross Asset Research, DCM Forecasts and Dealogic

Active start to the year in Q1 in the context of the ECB tapering and ahead of the end of QE

- 2018 started with an initial sell-off in rates on the back of higher economic and inflation outlook, though fading away in the second half of the quarter.
- As such, 10Y Bund yield traded in a 35bp range (from 0.423% to 0.765%) and eventually landed at 0.494% at end of March.
- The end of QE, initially announced as early as September 2018, pushed SSA borrowers to anticipate

- In the USD market, the theme of the year was the rising trend in rates on the back of the strong performance posted by the US economy (record low unemployment and higher inflation prospect) pushing the Fed to accelerate the tightening of its monetary policy. While escalating tensions around trade war brought more volatility to markets, the SSA sector remained strong with spreads still at their high-water marks in the context of the overall reduced primary supply; in line with 2017, the USD primary market saw limited supply from European SSA borrowers with the EURUSD cross-currency basis continuing its march higher, hence reducing arbitrage opportunities.

- their funding needs and hence frontloaded in Q1 on the back of supportive conditions in primary.
- In this context, supranationals and agencies completed ~38% of the estimated annual funding needs at end of Q1 with major transactions from the EIB (EUR 2.5bn 30Y, EUR 2bn 15Y tap and EUR 5bn 10Y), EFSF (EUR 6bn 7Y, dual-tranche EUR 4.5bn 5Y and 22Y, EUR 3bn 10Y) and KfW (EUR 5bn 10Y and EUR 4bn 5Y).
- Sovereigns also started the year on a strong footing bringing jumbo transactions in the 10-year plus part of the curve. Among them were Ireland (EUR 4bn 10Y), Portugal (EUR 4bn 10Y), Italy (EUR 9bn 20Y), Spain (EUR 10bn 10Y and EUR 6bn 30Y) and Belgium (EUR 5bn 10Y and inaugural EUR 4.5bn 15Y green benchmark).

SSAs continued to advance their funding programmes in Q2, though at a slower pace, before the Italian political crisis brought a higher level of volatility in the markets.

- SSAs remained well supported in the first half of Q2 with the reduced syndicated activity combined with record high redemption flows in April and the first large PSPP reinvestment flows pushing secondary spreads tighter while the back up in rates revived investors' appetite for the longer end of the curve.
- Issuers took advantage of this backdrop with the example of Ireland executing its first 15Y benchmark since 2014 (EUR 4bn) while France offered for the first time ever a syndicated tap of its green OAT 2039 (EUR 4bn).
- That said, Q2 marked the comeback of more volatile conditions on the back of the formation of the Italian far right / far left coalition leading to a massive selloff in BTPs and a strong rally in core European Government Bonds (EGB).
- Although the EUR primary market fully reopened after a couple of sessions, the sharp spike in volatility pushed issuers to adopt a more pragmatic approach

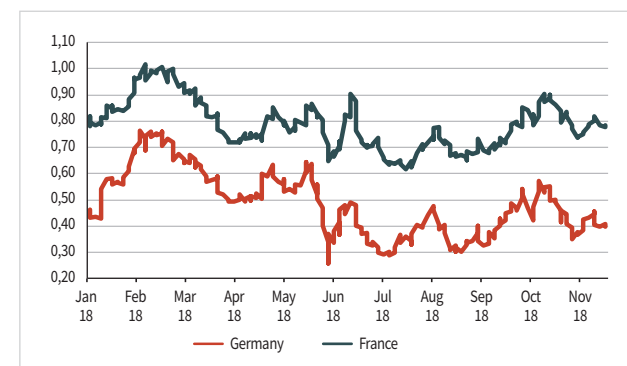
with investors asking for higher level of concessions to partake in the new transactions.

- On 13 June, the ECB announced the extension of the QE from October to December at a pace of EUR 15bn per month.

Primary issuance slowed down in the second half of the year as SSA borrowers found themselves well advanced in their funding campaigns post summer break. Overall, the SSA sector remained well bid in the context of the long-lasting Italian debacle, though investors started to increasingly focus on ECB's next moves.

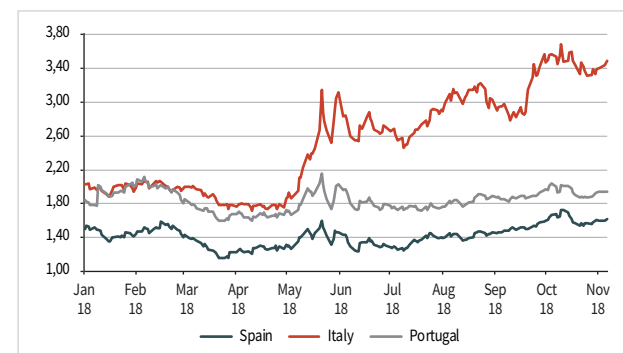
- The Italian saga continued in September with the coalition agreeing on a 2019 budget deficit of 2.4% of GDP, a marked increase from the previous government target of 0.8%. The news sent 10Y BTPs above 3.2% on Friday 28 September, to close September ~36bp wider than month lows, while 10-year spread to Bund went north the 270bp level.
- On the sovereign side, in September the Kingdom of Spain re-opened the non-core sovereign space with a new EUR 4bn 15Y inflation-linked benchmark backed by EUR 18bn of orders while the Republic of Cyprus took advantage of the upgrade from S&P to BBB- to extend its curve with a EUR 1.5bn 10Y benchmark.
- Supranationals and agencies kept focusing on the 10-year plus part of the curve with good support from cash rich investors in the context of the summer's negative net supply. Among the pivotal transactions, ESM launched a EUR 4bn dual-tranche composed of a new 10Y benchmark and a tap of its December 2055 line. On the German side, KfW priced a EUR 4bn 10Y benchmark while Land NRW addressed the investor demand at the ultra-long end with a new EUR 900m 60Y transaction. The Republic of Austria was also active on the ultra-long end, with three reverse enquiry driven taps of their outstanding 99-year bond between June and November, for a total of EUR 1.05bn (SG was a bookrunner on two of these taps).
- The tone in the SSA market switched in September with investors increasingly questioning the PSPP squeezed valuations with only a few weeks left before the end of QE. As a result, the market saw higher volatility in secondary spreads around executions with several transactions struggling to get traction, especially from frequent borrowers targeting large size projects.

Euro area 10-year benchmark yield performance in 2018



Source: Bloomberg

Euro area 10-year benchmark yield performance in 2018



Source: Bloomberg

Q4 was dominated by the overall risk-off tone in markets in the context of the interest rates volatile backdrop and political concerns in Europe with market participants focused on the Italian turmoil and announcements around the ECB's reinvestment policy.

- Italy remained at the centre of the stage with the submission of its draft budget to the European Commission on 15 October. The EU/Italy standoff escalated in the following days with the EU commission eventually asking for a revised budget draft on 22 October. On the rating side, Moody's downgraded Italy to Baa3, though with a stable outlook when some participants were anticipating a negative outlook. On 26 October, S&P affirmed Italy's credit rating to BBB, but revised the outlook to negative.
- In this context, the Green bond market demonstrated its resilience, with a number of extremely well received transactions: Société du Grand Paris, the new 100% Green French issuer, priced a debut EUR 1.75bn 10Y Green bond while KfW executed a strongly oversubscribed EUR 1bn short 8Y Green line. On the sovereign side, the Republic of Ireland added to the green flavour, launching a well-telegraphed inaugural EUR 3bn long 12Y Green bond, while The Netherlands announced their intention to launch the first AAA-rated Sovereign Green bond in 2019.
- Additionally, with the end of QE approaching, European investors increasingly expressed their interest in diversifying away from ECB QE eligible signatures as a way to protect themselves against a potential repricing in 2019.

The inflation-linked market throughout 2018

- EUR inflation-linked bonds issuance volumes (excl. retail bonds) should reach around EUR 61.5bn in 2018, EUR 10bn more than in 2017 but just around EUR 5bn more in net supply terms.
- The net supply to investors is much larger than in 2017 given this year the PSPP will absorb a lot less of the gross supply. We estimate PSPP purchases to be just below EUR 12bn, EUR 23bn less than was the case in 2017.
- The overall softer inflation outlook and higher market volatility weighed on syndicated activity this year with supply limited to one new issue courtesy of the Kingdom of Spain which priced a new EUR 4bn 15Y benchmark in September. The transaction was very well received with final orderbooks north of EUR 18bn.

2019 forecast

2019 SSA issuance programme

EUR public sector issuance volumes 2018e vs. 2019e

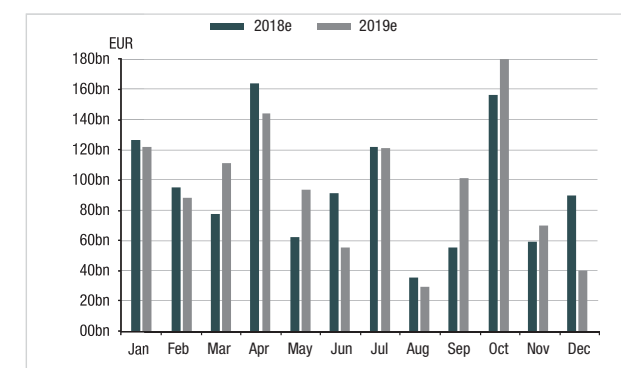
Sector	Expected realised issuance volumes in 2018 (EUR bn)	Estimated issuance volumes in 2019 (EUR bn)	2018e vs. 2019e volumes (%)
Sovereigns	909	922	1,4%
Agencies & Supranationals	203	201	-1,0%
Local authorities	56	52	-7,2%
Total Public Sector	1 168	1 175	0,6%

Source: Based on Societe Generale Cross Asset Research and DCM Forecasts

For 2019, we expect EUR issuance volume from public sector issuers to remain stable compared to 2018.

- We anticipate a slight increase in EUR sovereign volumes next year (+1.4%) on the back of higher redemptions while central government deficits should remain stable versus 2018. Looking at Agencies & Supras, the downward trend in EUR volume should continue with overall lower funding needs. As such, our estimations highlight a 1% decrease in total Agencies and Supras volumes.
- Obviously with the end of the PSPP set for December 2018, the behaviour of SSA spreads will be well scrutinised going into 2019, especially in the context of the heavy supply expected in Q1 2019 which could fuel and exacerbate this potential repricing move.
- Societe Generale expects Euro HICP to gradually pick up in the next years after a long period of inflation close to 0. Although we do not expect a huge upside to breakevens, the EUR inflation-linked market should be well supported going forward with investors driven by improving inflation prospects and looking for this asset class given its defensive nature in case of yields moving higher.
- In terms of EUR SSA bond redemption flows, we expect EUR 1,154bn outflows in 2019, i.e. 2.1% higher than in 2018 (sovereigns +2.6%, agencies and supras -0.1%, local authorities +1.8%) than 2018.

Public sector EUR bond redemption flows in 2018e and 2019e



Source: SDC Platinum, Bond Radar, Dealogic and SG CIB DCM Analytics

USD MARKET

2018 review

The continuous strong performance posted by the US economy pushed the Fed to accelerate the tightening of its monetary policy to avoid any overheating while the USD market faced with more volatile conditions in the context of escalating tensions between the US and trade partners.

- Overall issuance volumes in USD reached USD 2,303bn (excluding US agencies) by mid-November – a 4.3% increase versus last year despite the sharp decrease in non-US SSA volumes (-24% vs. 2017). This drop was indeed compensated by the higher funding volumes raised via auction by the US Treasury (+11.5%), notably to finance the tax reform voted at the end of 2017.
- In line with last year, 2018 was marked by the limited supply from European SSAs in the context of rising EURUSD cross-currency basis, hence reducing arbitrage opportunities to the very short end of the curve only. As such, supranationals and agencies raised around 37% of their funding via the USD market versus 36% in 2017 after 48% in 2016.

USD public sector issuance volumes 2018e vs. 2017

Sector	"Issuance volumes in 2017 (USD bn)"	Expected realised issuance volumes in 2018 (USD bn)	2017 vs. 2018e volumes (%)
US Treasuries	2 047	2 282	11,5%
non-US Sovereigns	158	122	-23,0%
non-US Agencies & Supras	270	216	-20,1%
Local authorities	34	13	-61,5%
Total Public Sector	2 509	2 633	4,9%

Source: Based on Societe Generale Cross Asset Research, DCM Forecasts and Dealogic

Trump's Administration policies and the Fed's monetary tightening have had a significant impact on USD markets in 2018.

- After an initially strong start to the year, equity markets tumbled in February in anticipation of a more hawkish Fed, later replaced by concerns around a trade war. In March, the Fed delivered with a much anticipated 25-bp rate hike on the back of the strong economic performance, but downplayed the risk of overheating.
- In this context, 10Y USTs traded up to 2.951% before retracing to 2.740% at end of Q1, though around 33bp wider versus the opening of the year.
- On the European sovereign side, the Kingdom of Sweden brought EUR 6bn via a new 5Y and a new 3Y benchmark.
- Supras and agencies were more active, executing 42% of the annual estimated volumes at end of Q1. Initially skewed to 5Y, the issuance activity increasingly focused on the shorter end as the EURUSD basis started deteriorating. The major transactions came from EIB (USD 5bn 5Y, USD 4bn 3Y) and KfW (USD 5bn 5Y, USD 3bn 10Y and USD 4bn 3Y).

- Volumes dropped sharply in Q2 with European Supras & Agencies issuing around USD 34bn given the lack of arbitrage opportunities and the end of the fiscal year for several major SSA issuers. USD 24.5bn of that total came under syndicated format; IADB and KfW priced the largest deals with new USD 4bn 3Y and 2Y benchmark respectively while EIB offered a rare USD 1.5bn 7Y transaction.
 - Issuance activity picked up in Q3 with the EURUSD basis coming off its highs and the kick-off of the US fiscal year while SSA curves had moved down in Q2 in the context of subdued primary supply. As a result, SSAs took advantage of this environment to print transactions at historical tight levels. Volumes from Supranationals and Agencies reached USD 45bn with several issuers bringing sizeable benchmark trades: IBRD (USD 5bn 3Y and USD 4bn 5Y), EIB (USD 4bn 5Y and USD 3bn 3Y), IADB (USD 2.8bn 10Y) and BNG (USD 2.5bn 5Y).
 - In the context of the announced end of the LIBOR index, Q3 saw the first floating-rate SSA issuances linked to SOFR (Secured Overnight Financing Rate) from Fannie Mae (6-month, 12-month and 18-month issues) and the World Bank (USD 1bn 2Y), marking an important step towards the development of robust alternatives to LIBOR.
 - On the rates side, UST yields sold off aggressively in September with the 10Y rate approaching 3.1% before settling down to 3.088% i.e. 20bp wider than month's opening. The Fed raised rates by 25bp to 2.25% and omitted the 'accommodative' reference from the statement, though Chair Powell played down the importance of the language tweak.
- Primary issuance slowed down in Q4 with most issuers well ahead of their funding programmes while rates continued their march higher.**
- European SSAs kept on visiting the dollar market as a way to diversify their funding source and investor base. In this context, ESM priced its second USD benchmark ever with a new USD 3bn 2Y line. KfW issued a new USD 4bn 3Y and EIB priced a USD 3bn new 5Y line.
 - In October, the 10Y UST yield topped 3.21% after the unemployment rate for September declined to a 48-year low at 3.7% while global equity markets tumbled as concerns about trade policy, Fed tightening and political issues in Europe were finally felt by equity investors.
 - Going into year end, after a few weeks of softer tone in October, the reduced issuance activity should bring good support to the SSA market. On the monetary front, despite US President Trump renewing criticism about the ongoing policy tightening, the Fed is set to administrate a fourth 25-bp rate hike at the December FOMC meeting.

2019 forecast

2019 SSA issuance programme

USD public sector issuance volumes 2018e vs. 2019e

Sector	Expected realised issuance volumes in 2018 (USD bn)	Estimated issuance volumes in 2019 (USD bn)	2017 vs. 2018e volumes (%)
US Treasuries	2 282	2 768	21,3%
non-US Sovereigns	122	120	-1,6%
non-US Agencies & Supras	216	222	2,8%
Local authorities	13	21	61,3%
Total Public Sector	2 633	3 131	18,9%

Source: Based on Societe Generale Cross Asset Research and DCM Forecasts

2019 expected trends in USD

- USD issuance volumes should be up by 18.9% overall, according to our estimates, based on an increase in US Treasury volume (+21%) due to a higher central government net borrowing (USD 1,080bn versus USD 772bn estimated in 2018).
- We expect non-US sovereigns to continue to enter the USD market as a way to diversify and hedge their liquidity risk, and capitalise on investor appetite for higher yield, though at a slower pace. We anticipate non-US sovereign issuance volumes to reach USD 120bn in 2019 versus USD 122bn expected in 2018.
- Looking at Agencies and Supras (excl. US agencies), we expect primary activity to be in line with 2018, though the direction of the cross-currency basis will remain a key factor for European-based issuers.
- In terms of the US economy, we anticipate tax cuts and higher government spending to continue to boost growth while inflation and wages are expected to remain very lively. In this context, the Fed should continue to gradually hike rates in 2019 with the latest September 2018 FOMC dots implying three hikes in 2019.

EMERGING MARKETS

APAC

2018 review

Issuance volumes impacted by EM jitters and the Fed

- Asia's international bond markets in 2018 have not scaled the lofty heights achieved in the previous year. At the end of Q3 2018, the G3 international bond volume in Asia, excluding Japan, reached USD 195bn – a marked slowdown versus the USD 243bn issued at the same stage last year, and significantly short of the record USD 322 billion seen in FY 2017.
- The benign backdrop in Asia in 2017 of (still) low US interest rates, low volatility in credit, continual tightening of credit spreads, massive liquidity and inflows, and persistently accommodative QE measures from central banks gave way to a very different dynamic in 2018: rising rates driven by a hawkish Fed, the scaling back of QE, greater geopolitical uncertainty around North Korea, heightened concerns around a US-China trade war, capped by a general risk-aversion towards emerging markets which led to greater FX volatility and fund outflows from the region.
- While volumes in the FI sector have generally kept pace with last year, a 10% drop in issuance by Sovereigns/SOEs and a significant 40% reduction in High Yield issuance have been the main drivers of the reduced total issuance in 2018.
- We expect issuance from Asia excl. Japan G3 in 2018 at around the USD 240bn equivalent mark, or 75% of 2017's record-breaking volumes.
- While China issuance continues to dominate overall volumes from the region, there has been a dip in absolute numbers. At the end of Q3 2018, mainland Chinese issuers (excluding Hong Kong) represented 65% of the Asia (excluding Japan) G3 international bond issuance volumes, or USD 127bn equivalent. This compares with USD 140bn from China at the same stage last year, and USD 194bn for FY 2017.
- In Japan, primary volumes of USD 81bn in 10 months into 2018 is still off the record pace in 2017 (USD 107bn). Banks continue to dominate issuance in the offshore market, through TLAC transactions primarily, and in recent months, an increase in green bond issuance. Same story from Australia: issuers were very active in USD and EUR from both the corporate and FI sectors, and volumes are expected to reach a similar level to last year in offshore G3 bonds. Financial institutions continue to dominate with 85% of volumes, while more corporates ventured overseas including debut EUR issuers like Ausgrid. Demand for Australian corporate paper from European investors was evident, with Sydney Airport returning to the market after a four-year hiatus, and achieving a zero new-issue premium on its new EUR 500m 10-year bond.

Green/social/sustainable bonds grow in popularity amongst APAC issuers and investors

- Asian countries are progressing towards sustainable financing with different green incentives and standards being considered: Green/social bond standards: the ASEAN released their new Green

- Bond and Social Bond Standard in October 2018, set in line with the ICMA standards except for some higher requirements standard (e.g. explicitly excludes fossil fuel investments and has greater disclosure requirements). This follows similar moves by other Asian jurisdictions, e.g. China in December 2015, Japan in March 2017 or Indonesia in December 2017.
- Green financial support: in April 2018, Malaysia extended its sukuk grant scheme which allows for tax deduction of issuance costs for issuers and tax exemptions for investors to green sukuk issued before December 2020. This pre-empted similar moves in other jurisdictions, such as Japan (subsidies of up to JPY 50m per transaction to help cover the costs of external reviews, green bond structuring and consulting, May 2018) or Hong Kong (announcement of a HKD 2.5m 3-year pilot green bond grant scheme that subsidises the cost of getting green bond certification, June 2018) and followed the introduction of a similar green bond grant scheme in Singapore in 2017.
 - In terms of issuance, APAC represents 28% of the total sustainable bond primary market volume in 2018 year-to-date with a noticeable number of landmark transactions:
 - There was a wave of inaugural transactions out of Korea including: LG Display's inaugural green senior bond, KHFC's inaugural social covered bond (first social covered bond issued out of Korea), Lotte Group's inaugural sustainable senior bond, Korea East West Power's inaugural sustainable bond and K-Water's inaugural green bond.
 - Chinese and Hong Kong banks have been particularly active in 2018 year-to-date with a total of EUR 6.6bn eq. issued (of which EUR 2bn eq. by ICBC/ICBC Asia alone).
 - Japanese issuers have also actively tapped the market with a total of EUR 5bn eq. of issuance composed of a mix of green and social bonds.

Sovereign issuance

- Despite concerns around EM volatility, global investor appetite was robust across the Asian sovereign credit spectrum, with governments in the AA to B rating range issuing benchmarks throughout the course of the year across USD, EUR and JPY. Sovereign issuance from Asia (excluding Japan) continues to account for ~7% of total volumes, and this year saw regular borrowers and new names tap the markets.
- On the regular EM sovereign issuers front, the Philippines (Baa2/BBB/BBB) kicked off the year with a USD 2bn 10-year deal, and followed up with a triple-tranche Samurai JPY154bn transaction in August. Indonesia (Baa2/BBB-/BBB-) continued to be an active borrower across formats and currencies. The issuer, which received a one-notch upgrade from Moody's in April, launched a USD 3bn sukuk, which included an innovative green tranche with proceeds to be used

for renewable energy, clean transportation and other projects. Indonesia also returned to the USD, EUR and samurai markets, raising a total of almost USD 6bn across formats in 2018.

- South Korea (Aa2/AA/AA-) returned to the markets with a USD 1bn dual-tranche 10Y/30Y, and China flexed its muscles as it launched a USD 3bn triple-tranche transaction, paying 30bp – 70bp above US Treasuries.
- In the frontier space of single-B rated sovereigns, the Independent State of Papua New Guinea launched its long-awaited debut USD 500m 10Y at 8.375%, while Sri Lanka (rated B1/B+/B+) front-loaded part of its financing needs with a USD 1.25bn 10Y in April.

2019 forecast

US-China trade war rhetoric and rising US rates have created challenges for EM APAC borrowers. We therefore expect to see a flight to quality, as borrowers at the lower end of the credit spectrum tackle upcoming redemptions.

China

- China's bond market has posted significant growth in the past few years, and we believe China will remain the main player for 2019's offshore bond issuance in the Asia (excl. Japan) Debt Capital Market, topping USD 185bn eq. in G3 currencies. Indeed, 2019 will see a record level of redemption with a total of USD 105bn of offshore bonds maturing during the year.
- State-owned enterprises (SOEs) under central State-owned Assets Supervision and Administration Commission (SASAC) will keep printing a high volume of large signature bond transactions to fund their overseas projects and refinance existing debt, as we have seen this year with the USD 6.5bn eq. jumbo deal from ChemChina. However, unless the market stabilises over a longer period of time, we expect second-tier and local governmental SOEs and financing platforms to have difficulties accessing the market. In this category, we believe only the best rated names can tap the offshore market investor base on a regular basis.
- We also expect banks and non-bank financial companies to maintain their pace of issuance in senior bond format and to take a step further in terms of currency diversification. In the bank capital space, many Tier2/AT1 bonds will reach their call dates in the next couple of years, so we can expect a high level of refinancing. In addition to strong funding activity from the offshore branches of the state-owned "Big Four" banks, we also expect joint-stock commercial banks to increase issuance volume mainly through their Hong Kong branches.
- Chinese property developers dominated the high-yield bond market this year, despite the National Development and Reform Commission (NDRC) toughening its approval procedures and restricting the use of proceeds for refinancing. We believe this sector will maintain its role as the key bond suppliers in the coming year. Indeed, 17% of next year's redemption will be from the Real Estate sector and is expected to be refinanced via new offshore bonds. Nonetheless,

we expect the sector will be challenged in terms of pricing and market access, with some recent real estate bond transactions crossing the double-digit coupon threshold and/or scaling back size aspirations. For industrial high-yield names, especially in the private-owned enterprise (POE) space, given the rising interest rate environment and the volatility we witnessed this year, we believe investors will have a more selective approach and will favour companies with low leverage level and solid credit metrics.

- Although USD will remain the preferred currency, as observed on the primary market in the past two years, Chinese issuers will continue to benefit from the eurozone's low-interest rate environment. EUR issuance is likely to gain in popularity in the coming year based on the diverging monetary policy and the cross-currency basis swap getting tighter.
- On the back of strong government initiatives to encourage environmentally friendly economic development, we believe green bonds will continue to gain traction among issuers in China. With the first Chinese offshore green bond issued only in 2015 and a growing number of offerings since then, we believe this trend will spread to a larger issuer base as issuers and investors become more familiar with such structures.

Korea

- The Korea DCM market posted USD 29bn eq. of international debt issuance volume in 2018 year-to-date with a total of 142 transactions, representing an increase of approximately 10% compared to the previous year. The increase is largely attributable to favourable funding conditions for Corporates compared to domestic funding levels. In contrast, we witnessed relatively limited funding from financial institutions due to ample foreign currency liquidity.
- The most noticeable trends of the year in the Korean market was diversification, in terms of currency, products and issuer type. Korean issuers tapped diverse markets in different currencies, as the cross-currency basis swap has been favourable to non-USD primary issuances. We observed a clear uptick in Korean issuers tapping the CHF, CNH, EUR, AUD, and JPY market to diversify funding sources whilst saving costs. The Formosa market was a key destination for Korean issuers, as shown by the sharp increase in Formosa issuance across a broad spectrum of sectors.
- SRI bonds also grabbed the attention of Korean issuers and made an impact on the markets. In line with current market trend and increasing investor interest in SRI bonds, Korean issuers actively engaged in issuing all kinds of SRI bonds, including sustainability bonds, green bonds (both conventional and unique, such as water bonds) and social bonds. We also saw a number of new issuers come to market to diversify funding and save costs.
- We expect to see similar dynamics in the Korean debt capital market over the coming year. Total issuance volume in 2019 is likely to remain flat or move slightly higher, with the amount of Korean international bonds maturing in 2019 (USD 27.3bn) a touch higher compared to 2018 (USD 26.6bn).

South-East Asia and India

- Bursts of volatility fuelled by macro-economic shocks, monetary policy speculation and political uncertainties made 2018 a difficult year to navigate. Overall, South-East Asian and Indian issuers were less proactive on supply than last year, issuing USD 43bn in the first 10 months of the year. This compares with USD 73bn for all of 2017. The Financial Institution (FI) sector continued to dominate (56% of total volumes), followed by Corporates (25%) and the balance from Sovereigns (19%).
- The FI sector remained robust in 2018 and made up almost 56% of total volumes (compared with 47% the previous year). Banks from South-East Asia and India were able to navigate the global market backdrop to raise issuance across asset classes.
- Singapore banks issued four covered bonds this year in all asset classes, notably DBS' inaugural EUR 600m Tier 2 issuance - the first by a Singapore bank - as well as an extension of the Singaporean bank EUR covered bond curve through transactions from UOB and OCBC. The three major banks issued a total of USD 5.1bn in USD senior bonds, covered bonds and bank capital for the first 10 months, which was on par with the volume from the same period in 2017. It was also an eventful year for Singaporean banks as both DBS and UOB offered inaugural EUR Tier 2 and USD 144A issues respectively in 2018. As for Indian banks, activity was down compared with 2017, despite an inaugural green bond from the State Bank of India at USD 650m. This year, FI issuance in euros totaled EUR 2.6bn, with all issuers coming from Singapore.
- Corporate issuance in 2018 was underpinned by the Utilities/Oil/Gas/Metals/Transport sectors, helped by generally positive company earnings. Corporate issues this year totalled USD 10bn, representing half of last year's figure and the same as 2016. This was mainly due to the decline in Indonesian corporate issuance to USD5.3bn from USD8.7bn in 2017, offset by activities in the Utility & Energy and Transportation sectors. Indian corporates also experienced a dip in volume as the big names in Oil & Gas held back from the market this year.
- As a result of the risk-off approach that prevailed most of the year, we saw lower supply from the high-yield sector (USD 8bn in 2018 YTD vs. USD15bn 2017). In addition, volumes were hurt by India (USD 5.8bn in 2018 YTD vs. USD 15bn 2017) and Indonesia (USD 10bn in 2018 YTD vs. USD20bn 2017). The Indian rupee fell to its weakest point against the strengthening US dollar since the beginning of the year, while the Indonesian Rupiah slumped to its lowest level since the 1997/98 Asian financial crisis.
- In Q1 2018, the political uncertainties in the US had the opposite effect and drove many issuers to front-load their annual funding ahead of US-China trade tension. In this context, we saw 51% of 2018 volume from Q1 2018 versus Q1 2017 (37%), followed by Q2 2018 (34% vs. 19% in Q2 2017).
- In terms of currency mix, EUR volumes in 2018 year-to-date (USD 7bn eq.) has already surpassed total 2017 EUR issuance (USD 5.6bn eq.). EUR/USD basis swap spreads tightened significantly in 2018, moving from

-33bp in January to -17bp in October in the 5Y tenor. Many issuers took advantage of these favourable EUR to further diversify their investor base.

- The primary space was fertile for green bond issuers in 2018: USD 4bn in the market in the first 10 months compared with USD 5.3bn for the whole of 2017. In 2017, we saw 8 out of 11 issuers from India, of which more than half were high-yield corporates. In 2018, green issuers were mostly from the Philippines and Indonesia, the only Indian issuer being the State Bank of India.
- In 2019, we expect issuance volumes will remain driven by banks in the region continuing to issue across the capital spectrum. Given the approximately USD3bn in bank capital callable in 2019, we expect Singaporean banks to pursue refinancing plans to optimise CET 1 ratios, while Indian and Malaysian banks continue to monitor the bank capital and green space.
- We expect Corporate issuance in 2019 to remain largely similar to this year's trends, with the Utilities/Oil/Gas/Metals/Transport sectors dominating the primary market. As yields continue to rise in the US, more corporates will explore EUR as a viable option.
- The government of Indonesia issued a total of USD 3.5bn this year, followed by USD 2.5bn from the Sri Lankan government. Sovereign issuance is expected to total USD 9bn via the region's regular frequent government borrowers (Indonesia, Philippines and Sri Lanka).

Developed markets in APAC offer a safe haven.

Australia/New Zealand

- Australia and New Zealand remain a significant contributor to APAC G3 bond issuance, with volumes of USD 40bn at October 2018. This compares with USD 55bn at October 2017.
- Issuance is predominately from banks, accounting for almost 85% of total volumes, which is largely consistent with 2017. Across the capital structure we observe that Australian Banks continue to favour issuing in senior unsecured format with covered bond issuance remaining subdued. In absolute terms, Australian Banks G3 bond supply reached USD 30bn equivalent this year, of which USD 5bn equivalent is in covered bond format. Attractive senior funding costs along with the Major Bank Levy Bill, passed in June 2017 by the Australian parliament, have been contributing factors to this issuance dynamic.
- APRA released a discussion paper late in the year, which proposes increases in loss-absorbing capital ("LAC") capacity in the event of failures in the financial sector. Early estimates suggest the Big 4 Australian banks (ANZ, CBA, NAB & Westpac) will need to raise an additional AUD 67bn – 83bn (USD 49bn-60bn eq.) of regulatory capital by 2023. This is likely to have a significant impact on Tier 2 issuance from Australia in the coming years, while Senior supply will correspondingly reduce.
- At USD 7bn, the pace of corporate issuance in the G3 public markets is running behind 2017's full-year volumes of USD 13.8bn. These figures do not include volumes raised through the US PP market. Here it is worth noting that funding conditions for Australian

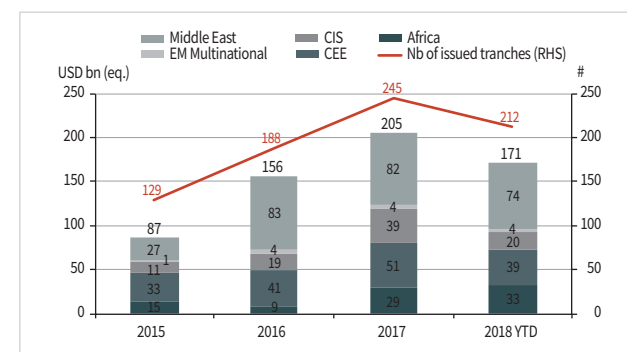
corporates and infrastructure issuers have been extremely constructive offering large volume and competitive pricing. By currency, we observe that public market issuance in euros exceeds USD for the first time since 2014 which may be explained by a favourable EUR/USD cross-currency basis swap which is at its tightest since 2014.

Japan

- In Japan, primary volumes of USD 81bn in the first 10 months of 2018 was declined from 2017's USD 107bn, but surpassed 2016's USD 80.5bn. In 2018 year-to-date, we saw 94% of new issues coming from investment grade borrowers. Of the remaining USD 4.5bn of high-yield issues, USD 4bn came from SoftBank Group. Of the total volume issued this year, more than 80% came from TLAC issuance from Japanese Mega Banks and 17% from corporates, a trend also seen in 2017. The largest FI issuers were SMBC/SMFG

CEEMEA

CEEMEA volumes by region



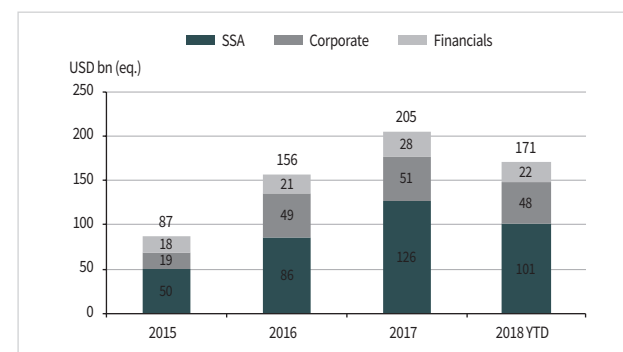
Source: Bond radar

- CEEMEA primary market activity saw a change in fortune in 2018 following the robust performance in 2017. With patchy periods of increased volatility and the subsequent risk-off sentiment driving the overall spreads higher, 2018 activity for CEEMEA international debt markets slowed down in the second half of the year with total issuance volumes for the year-end expected at USD 174bn (eq.).
- Whilst 2018 volumes were well above that of 2017 until May, beating the five-year record high, the following summer months turned out to be some of the slowest ever. The September activity picked up though at a slower pace than last year.
- This weaker performance resulted from the release of new US sanctions on Russia, impeding supply from the country and weighing on CIS volumes (-48% in 2018 YTD vs. 2017 YoY), Turkey's braked primary activity due to domestic political and economic newsflow (-38%) and a sharp decline in SSA Middle East/Levant¹ primary activity (-37%) linked notably to higher oil prices. Nevertheless, Middle East/Levant followed by CEE deals remained the largest contributors to primary supply for EM investors (43% and 23% of total CEEMEA

(USD 14.5bn), Mizuho (USD 7.5bn), and MUFG (USD 12.7bn). This year, we saw a few new developments in the Japanese primary market: SMBC's inaugural RegS euro-denominated 5Y Japanese covered bond and the noteworthy corporate transaction from JT International Financial Services' multi-tranche - the only non-automotive issuer with a multi-tranche in the market. We expect 2019 to follow a similar trend in FIs, but with higher volumes from Japanese corporates.

- EUR volumes in 2018 year-to-date (USD 11bn eq.) have already surpassed total 2017 EUR issuance of USD 10bn eq. Many Japanese issuers took advantage of the tightening EUR/USD basis swap spreads and the limited EUR supply from Asian issuers in recent months. This was attested by the Development Bank of Japan, which had not tapped the EUR market since 2015, offering of a EUR 700m 7Y Sustainability bond. We expect this trend will extend into 2019 as more borrowers explore the euro market.

CEEMEA volumes by asset class



Source: Bond radar

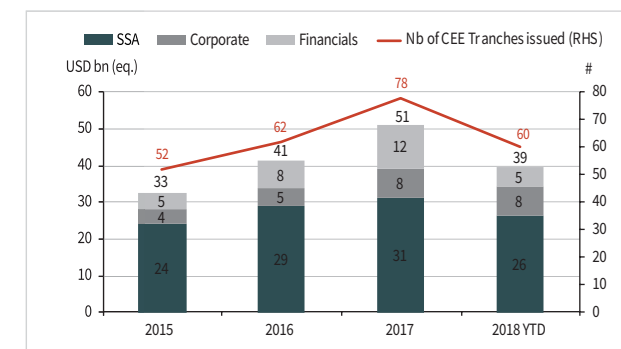
- supply respectively). African countries demonstrated strong resilience with robust volumes already exceeding the high 2017 levels (+26% vs. 2017 YoY).
- Fed's bullish stance, ECB's wrap-up of QE policy, dollar appreciation, global trade tensions, sanctions and the sharp deterioration of Turkish assets have led to growing concerns for investors and remain hanging over the EM asset class.
- Looking forward, the political and geopolitical developments are set to continue playing a vital role on overall market sentiment, though valuations remain attractive with emerging market debt yields near 2009 levels, offering decent returns to the investors versus other asset classes. Should the political headwinds settle down, the closest market window will see a flurry of EM issuers rushing to price their postponed deals or pre-fund ahead of rates normalisation. We estimate the overall 2019 primary issuance activity at USD 168bn (eq.). Despite shifts in EM fund flows trends, we believe that investors overall remain receptive to the EM risk, with real money accounts continuing to show strong participation in the latest transactions.

1. We use the term Levant to refer to transactions out of Iraq, Israel, Jordan, and Syria

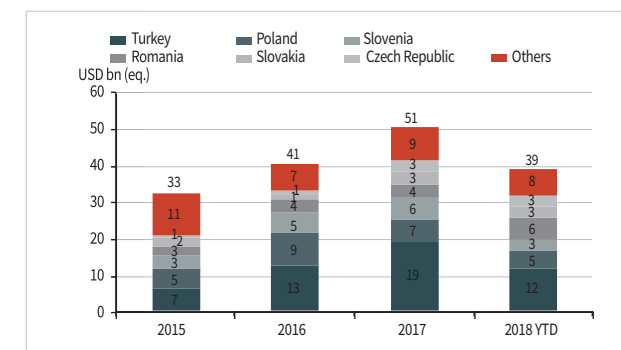
CEE

2018 review and 2019 forecast

CEE issuance volumes by asset class



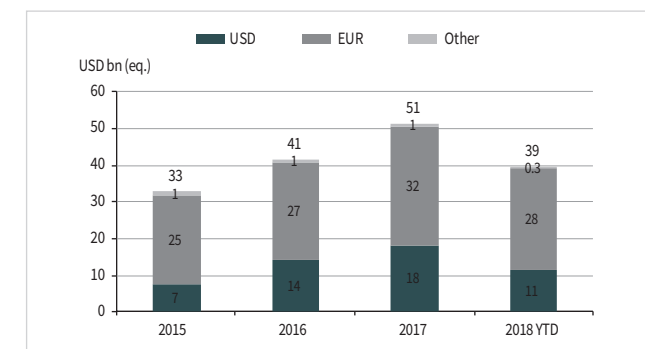
CEE issuance volumes by country



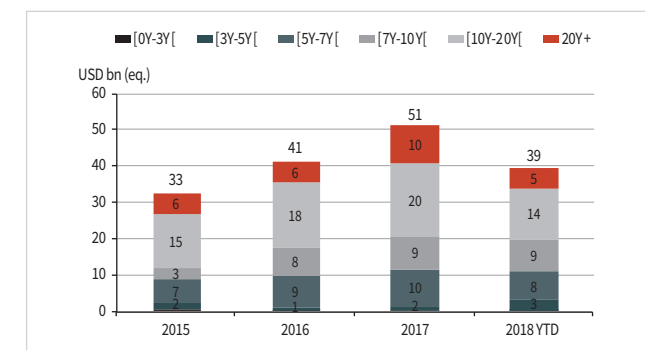
Source: Bond radar

- CEE primary activity declined by 22% compared to 2017 year-on-year due to Turkish domestic issues with USD 39bn (eq.) as of year-to-date. CEE excl. Turkey, though, showed relative resilience to idiosyncratic regional risks, with volumes standing neck-to-neck with 2017 with USD27bn (eq.) issued so far.
- Turkey issuances dropped during the summer, plagued by rising geopolitical tensions and a general investor cautiousness for Turkish assets. However, the market reacted positively to the subsequent monetary policy statements and strong government commitment to fiscal discipline. In October 2018, Turkey launched a new USD 2bn long 5-year, its first issuance since April, followed by EUR 1.5bn a couple of weeks later, showing that international investors are once again ready to engage meaningfully in Turkey. Turkey's ability to raise funding in the international markets marked an important milestone for a potential reopening of the market to other Turkish credits in 2019.
- In line with the previous years, the markets saw a flurry of transactions from CEE Sovereigns, successfully navigating the recent bouts of volatility to complete their funding programmes. Romania approached the market three times over the year, raising both in EUR and USD, thus, becoming the first CEE sovereign to access the USD market since Poland's transaction in 2016. Slovakia explored the ultra-long

CEE issuance volumes by currency

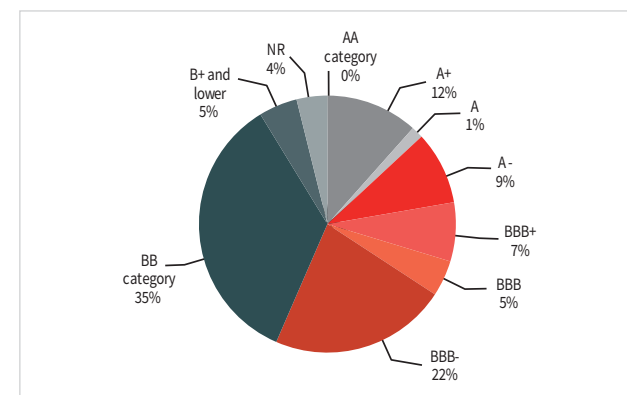


CEE issuance volumes by maturity



- end of the curve, issuing a EUR 500m 50-year transaction, one of the longest papers out of CEE, while Poland issued its second green bond issuance (a new EUR 1bn 8.5yr bond).
- Notably, several Sovereigns seized the right market window launching successful refinancing exercises to balance their maturity profiles ahead of rates normalisation. Montenegro executed a tender offer across its three shorter-dated bonds together with a new EUR 500m 7Y bond, Albania returned to the market for the first time since 2015 with a new EUR 500m 7Y in conjunction with a tender offer across its outstanding 2020s, Slovenia successfully carried out a combination of tenders, bonds exchanges, and taps of existing bonds to re-balance its debt profile.
- On the corporate side, the activity remained strong with Energy, Utilities and Real Estate representing the busiest sectors in primary markets in 2018. CPI Property Group was among the established issuers driving the overall volumes by issuing several times during the year, including EUR 550m Perpetual, the first corporate hybrid transaction out of the region. In addition, the market remained open both for inaugural and returning issuers.

2018 YTD CEE issuance volumes by rating distribution



Source: Bond radar

- Activity from FIs halved this year due to unfavourable market conditions for Turkish banks since Q2 2018, following a strong start of the year. In the rest of

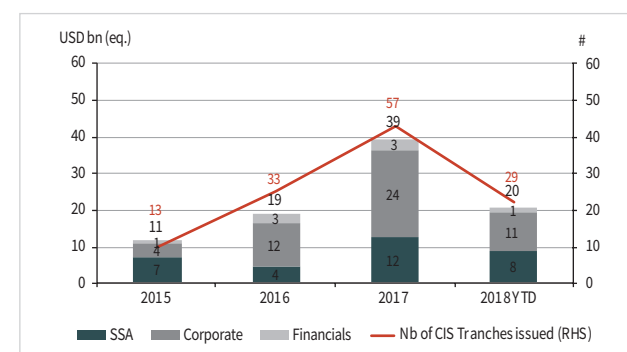
CEE, volumes were led primarily by Polish banks accounting for over 80% of volumes this year with mBank Hipoteczny's issuing its first EUR 300m short 7Y debut covered bond in April, while PKO BH accessed the markets for the fourth time since their debut deal in October 2016.

- Investment grade transactions represented the lion's share of issues, with around 55% of bonds issued in the CEE region in 2018 rated BBB- or higher.
- The CEE region has remained largely less affected by the clouds of global markets volatility, as sound fundamentals are supporting the overall investor interest towards the recent issuance. We expect a strong issuance in 2019 led by the higher funding needs from the sovereigns, in particular, Poland. In line with previous market dynamics, the sovereigns are likely to lead the market re-opening in 2019 to address their annual budget needs.

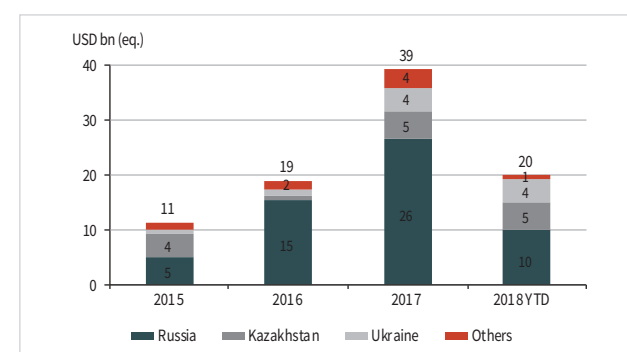
CIS

2018 review and 2019 forecast

CIS issuances by asset class



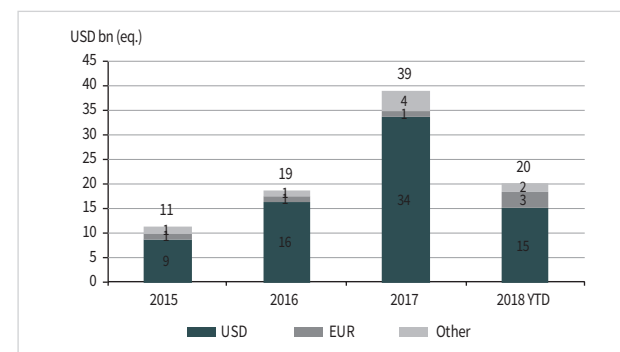
CIS issuance volumes by country



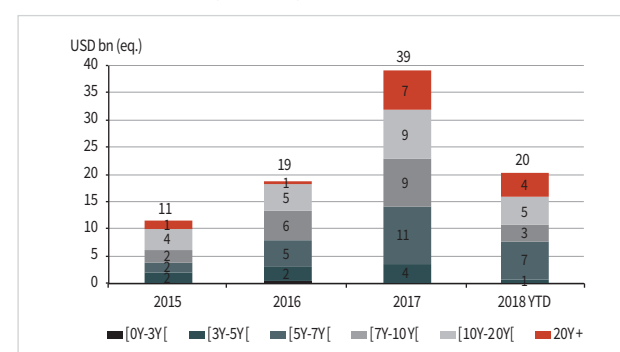
Source: Bond Radar

- Strong CIS market fundamentals carried over from 2017, underpinning the supportive environment for CIS issuers at the start of 2018 with a record high primary issuance set in Q1 since 2014.
- While the growing global trade concerns and expectations of accelerating EU and US interest rates were starting to slowly play into the overall softer

CIS issuance volumes by currency



CIS issuance volumes by maturity



market tone, new sanctions imposed on some Russian entities and individuals (notably inclusion of EN+ Group entities to the OFAC's SDN list in April) put the primary market activity in Russia to an abrupt halt in early April.

- Selling pressures that followed led to a double-digit underperformance of Russian assets and several deals being postponed across the region as the

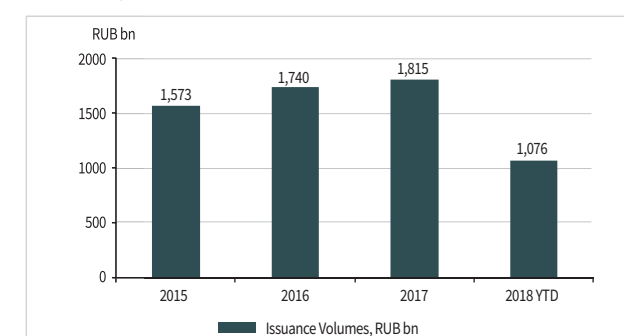
regional tone scaled into a worsening backdrop for EM credits globally. As a result, Russian volumes are down by over 60% versus the 2017 figures.

- Nevertheless, the primary market remained busy for other CIS issuers, who were less susceptible to Russian-related newsflow, with several notable deals printing during periods of market recovery.
- The Republic of Kazakhstan took over as the second most active region in terms of primary supply from CIS in 2018. Of note, Kazakhstan launched its inaugural dual-tranche EUR-denominated transaction with EUR 1.05bn split equally across the tranches and presenting the first sovereign EUR deal out of the region since Russia came to market in 2013. KMG successfully issued a landmark USD 3.25bn triple-tranche transaction (paired with tender and consent). DBK illustrated diversification demand from local currency EM funds with another KZT 100bn Eurotenge deal printed, this time also benefitting from US onshore investors through 144A tranche (on the back of RegS only transaction placed in December 2017).
- Belarus and Ukraine illustrated that strong demand for EM sovereigns remained in 2018. Belarusian sovereign was one of the first CIS issuers this year with a USD 600m deal printed in February. Ukraine successfully issued a USD 2bn dual-tranche in October.

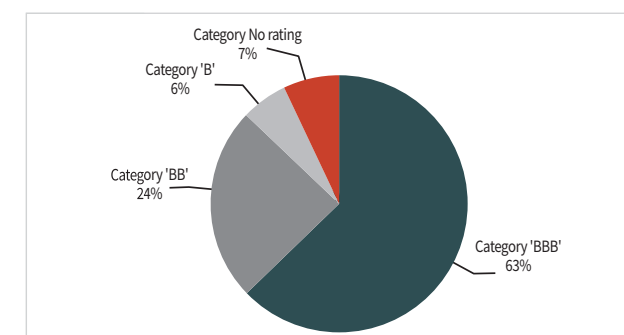
Emerging currencies: RUB

2018 review and 2019 forecast

Rouble corporate and FI bond issuance volumes

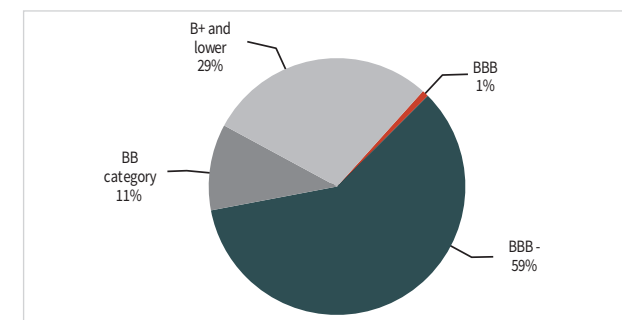


Rouble corporate issuance by rating



Source: Cbonds, as of 31 October 2018

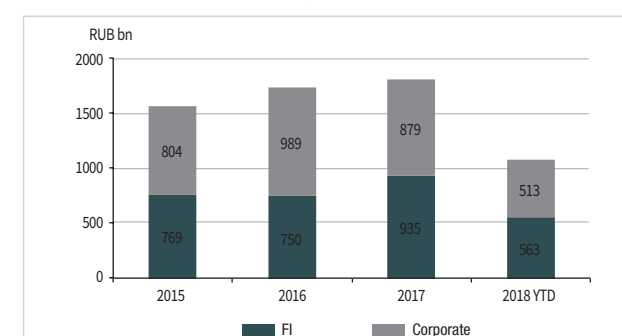
2018 YTD CIS issuance volumes by rating distribution



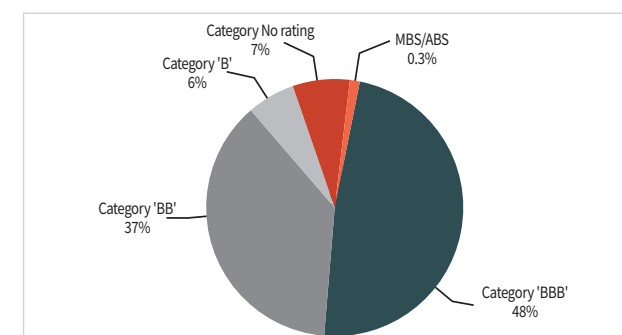
Source: Bond Radar

- Stable and relatively low prices on the secondary prompted a series of buybacks out of Russia, ranging from smaller and opportunistic tender offers by IMH and Global Ports, to larger size buybacks across the curve from Polyus Gold, Russian Railways and VEON.
- Total CIS primary issuance currently stands at USD 20bn eq., representing a decline of almost 50% compared with last year, despite favourable commodity market conditions most of the year.
- Investment grade issues represented around 60% of total issuance.
- With few CIS issuers still remaining on the sidelines from H1 2018, and provided no adverse factors emerge, we expect volumes to pick up in the coming year, as healthy credit fundamentals, coupled with attractive valuations build a strong investment case for regional credits.

Rouble bond issuance volumes by asset class



Rouble FI issuance by rating



Market plagued by emerging geopolitical risks and general EM weakness

- 2018 began with a favourable market environment. Rates reached their lowest level in March (5Y sovereign bond yield – 6.6%, CBR rate 7.25%). However, the downtrend reversed in April, leading to 190 bp sovereign yield growth and a 25 bp rate hike by the Central Bank of Russia (CBR) as of 30 October.
- The reversal in rates and liquidity was fuelled by two external shocks: US sanctions and a softer market in other emerging markets (primarily China and Turkey). The combination of these factors prompted the withdrawal of non-residents and resulted in market volatility and record low primary volumes.
- The April round of sanctions led to 35-50 bp growth in yields, with the primary market shutting down for five weeks. Later, the August announcement of a new bill imposing new sanctions against Russia, including potential restrictions on sovereign debt, caused a

massive bond sell-off resulting in a yield hike by up to 100 bp and the closure of the primary market for another two months.

- On the regulatory side, CBR is currently putting in place new infrastructure for local green bonds as well as perpetual bonds for corporate issuers.

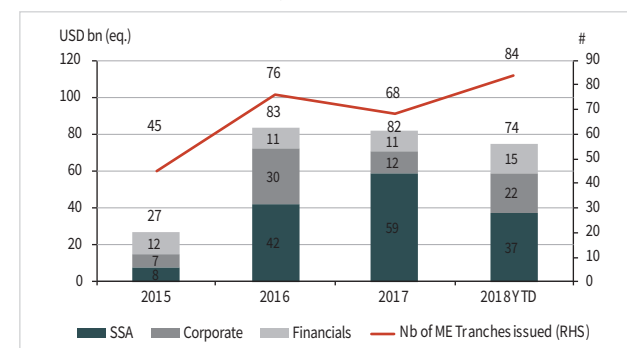
We expect recovery as the market adapts to the new geopolitical reality

- Local bonds market will be supported by strong macroeconomic fundamentals and accommodative CBR policy (with key rate expected to stay intact for the major part of the year followed by rate cuts in Q4 2019). RUB corporate bond issuance volume in 2019 are estimated to total RUB 1.6-1.8tn. However, a cautious approach is required due to geopolitical tensions, and figures remain subject to the further escalation of sanctions.

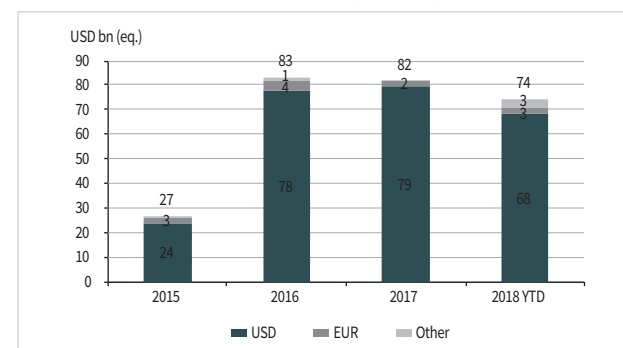
Middle East/Levant

2018 review and 2019 forecast

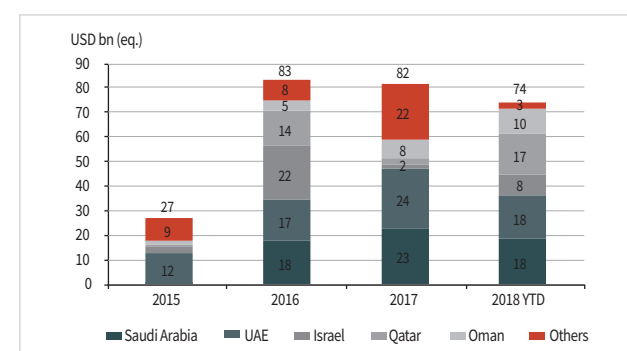
Middle East/Levant issuance by asset class



Middle East/Levant issuance volumes by currency



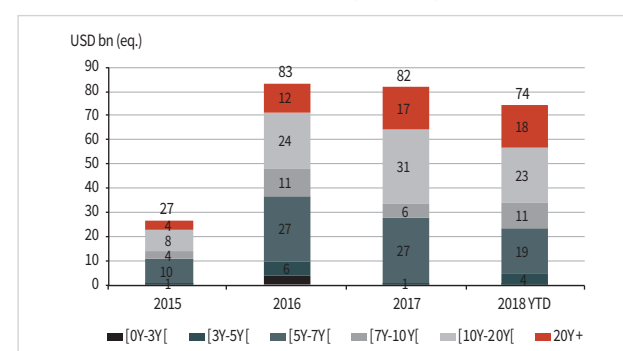
Middle East/Levant issuance volumes by country



Source: Bond Radar

- Middle East/Levant issuance volumes declined by 8% year-on-year due to a decrease in sovereign supply, which comes as no surprise as 2017 saw a vast amount of sovereign jumbo deals from Saudi Arabia, Kuwait, Oman and Abu Dhabi.
- Higher oil prices and improving fundamentals supported a positive outlook for Middle Eastern

Middle East/Levant issuance volumes by maturity



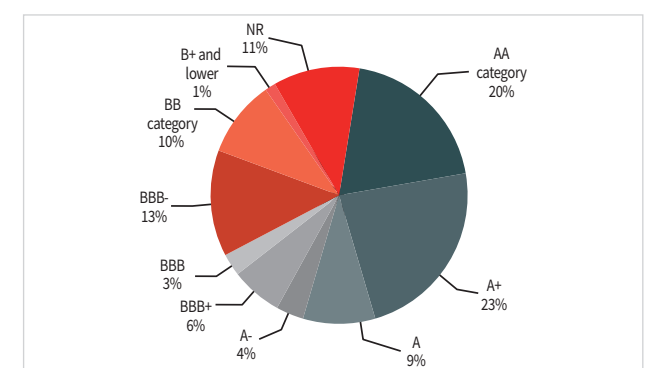
sovereigns in 2018 as well. The largest placements this year came from Qatar, which executed a USD 12bn triple-tranche jumbo deal, Saudi Arabia's triple-tranche USD 11bn transaction, and Oman's triple-tranche USD 6.5bn.

- Financial issuance increased sharply (+36% year-on-year), while corporate supply has almost doubled this

year with a strong Q1 2018 and, after a break in the summer due to market volatility, a strong upsurge from September onwards.

- The corporate primary market was sustained by a geographically diversified supply of issuers from Israel, Saudi Arabia and the United Arab Emirates. Pharmaceuticals, Utilities, Infrastructure, Mining, Telecommunication and Real Estate Companies all chose to issue in 2018. Biggest issuers comprised DP World with a USD/USD/EUR/GBP quadruple-tranche transaction of USD 3.3bn (eq.), TEVA pharmaceuticals with a EUR/USD quadruple-tranche transaction of USD 4.5bn (eq.) and a USD 2bn double-tranche transaction by Saudi Electricity company.
- The financial sector was very active this year following the strong comeback of Qatari issuers with Qatar National Bank that raised USD 3.8bn eq. over 11 transactions in several currencies, including AUD/CNY/USD, following its absence on international markets since 2016, a USD 500m bond from Commercial Bank of Qatar and a USD 500m Al Khalij Commercial Bank Bond.

2018 YTD Middle East/Levant issuance volumes by rating distribution



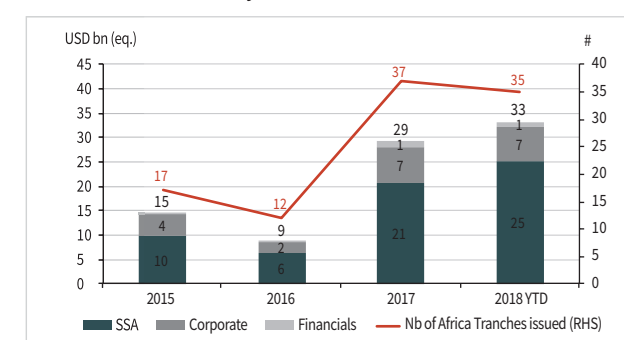
Source: Bond Radar

- While issuances continued to be predominantly in USD, EUR and other currencies (AUD, CHF, CNY, GBP) made up 8% of issuances compared with 3% last year.
- 78% of the bonds issued had investment-grade rating including 55% with higher-rated issues (A- and higher), due to the jumbo dollar offerings by borrowers such as Qatar sovereign.
- Over 20% of total issuance came in the form of sukuk issuance, supported by a resilient underlying investor base, which has proven less susceptible to short-term bouts of market volatility.
- Going forward, we expect Middle East/Levant to remain among the busiest subregions in CEEMEA on the back of improving macroeconomic fundamentals and a lack of currency swings. Geopolitical events, as well as general EM sentiment should nonetheless be closely monitored as they remain potential sources of volatility.

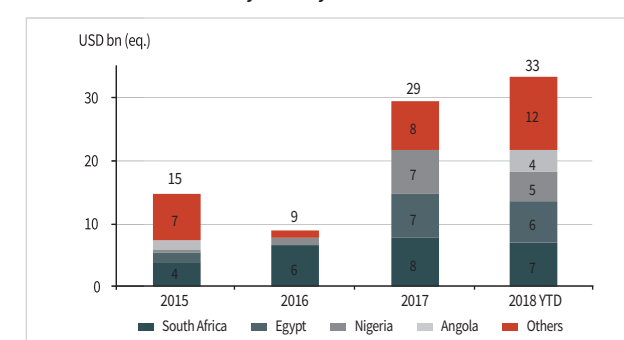
Africa

2018 review and 2019 forecast

Africa issuance volumes by asset class

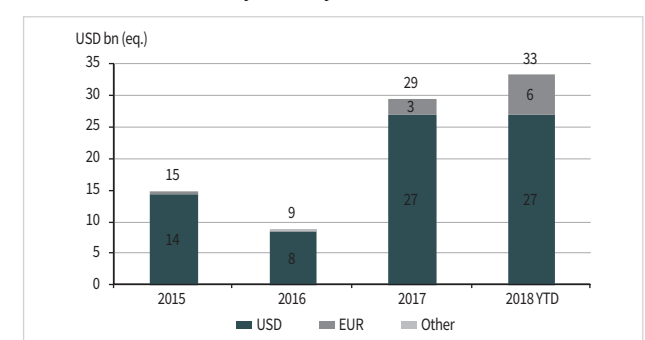


Africa issuance volumes by country

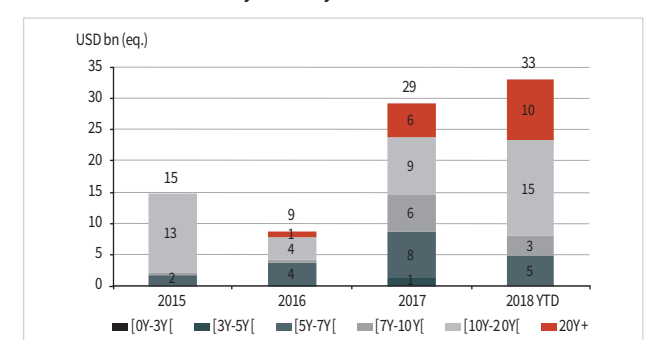


Source: Bond Radar

Africa issuance volumes by currency



Africa issuance volumes by maturity

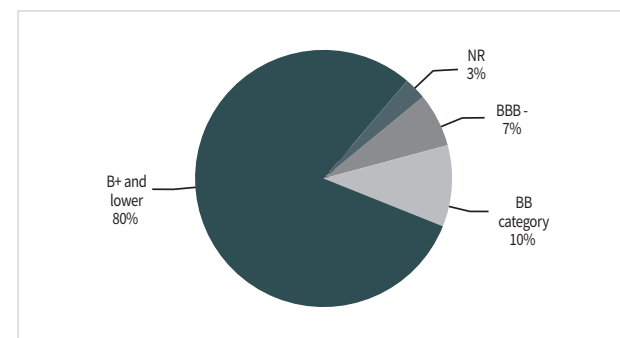


- Primary supply from African issuers increased its volumes by 26% to USD 33bn (eq.) compared to 2017, demonstrating their resilience in the context of global market volatility. The dynamism of primary supplies was fuelled by Sovereign issuances (+41% in SSA supply) and stable performance of Corporates (+1%) while financial issuances remain scarce (two issuances in 2018 YTD).
- 2018 marked a robust year for African sovereign issuers with supply arriving both from the regular issuers as well as several names returning to international debt capital markets after a break. Notably, several issuers chose to explore the longer end of the curve, such as Egypt (a dual-tranche EUR 2bn across 8 and 12 years and a triple-tranche USD 4bn deal across 5/10/30-year), Ivory Coast (a dual-tranche EUR 1.7bn with 12 and 30-year), Senegal (a dual-tranche with USD 1bn 30-year and EUR 1bn 10-year), Angola's first issuance since 2015 (a dual-tranche bond with 10 and 30-year tranches for a total size of USD 3bn and a following tap of a new 30-year for additional USD 500m), Kenya (a dual-tranche USD 2bn across 10 and 30-year) and Ghana (a dual-tranche USD 2bn across long 10 and long 30-year). This more than offset slower South African sovereign activity (-20% supply to USD 2bn).
- African sovereigns continued to attract strong interest from investors, and saw massive oversubscription and milestone deals being struck. Ivory Coast managed to issue the largest ever EUR-denominated bond by an African sovereign issuer (EUR 1.7bn), including the first ever 30-year EUR tranche for an African issuer, amounting to EUR 850m.

LATAM

Latin America had its fair share of volatility throughout 2018. The region was impeded by the profusion of global headlines throughout the year, as well as by Latin American-specific headlines, such as the new administration in Mexico, the recession in Argentina, political uncertainty in Brazil and the sharp decline of the Venezuelan economy. All of the above have contributed to Latin American issuance lagging behind 2017 figures by 52%. This decline is spread across Latin America and is not specific to one particular jurisdiction. Looking at the global macro backdrop, the US policy mix seems detrimental to Latin America in the short-to-medium term. As the Fed continues to raise rates amid strong domestic demand and asset prices, the dollar continues to strengthen. In the same breath, President Trump's focus on bilateral trade balances suggests US domestic demand will no longer translate into imports from Latin America and other EMs, as it has in the past. As the past has shown, this could bring the WTO and NAFTA regimes into question. Lastly, The US's new-found energy independence has uncoupled

2018 YTD Africa issuance volumes by rating distribution



Source: Bond Radar

- Amid the escalation of trade tension and doubts over the global and Chinese economic outlook, the corporate supply has seen a decline in activity, though mining and oil and gas issuers continued to take advantage from favourable forex rates (weaker local currency lowering costs relative to USD income). The largest corporate deals included a dual-tranche transaction issued by Sasol for USD 1.5bn and USD 750m respectively, a USD 1.5bn dual-tranche transaction from Eskom and a USD 1.85bn dual-tranche transaction from First Quantum Minerals. African financial issuance meanwhile remained muted with only two transactions so far, including a subordinated T2 10NC5 from First Rand Bank (USD500m) and T2 10NC5 USD400m transaction by ABSA.
- Non-investment grade issuers represented around 90% of total African volumes, with only two IG issuers in 2018: Sasol and the South African real-estate company Growthpoint. Cross-over names included Eskom Holdings and South Africa sovereign.
- We expect the upcoming supply from the subregion in 2019 to be driven by the dominant role of sovereign issuance.

stronger oil prices from a weaker dollar. A relationship that used to provide oil-importing Latin American countries relief.

As for the three largest issuers from the region.

- In Mexico, 2019 will be an interesting year now that Andrés Manuel López Obrador (AMLO) and his new administration are settling in. The market will look to AMLO to support the oil sector and Mexico's state oil company, Pemex. Given the slowdown in oil production in Mexico over the last six years, and the subsequent GDP percentage decrease, AMLO is eager to allocate a larger portion of his 2019 budget to the oil sector and the construction of a new refinery. AMLO's energy reform will rely heavily on the management of Pemex's debt load, which currently represents 20% of total public debt (9% of GDP). With the current rate of 7.75% well above the neutral rate of 5.5-5.0%, it will be interesting to see how the Bank of Mexico (Banxico) manages rates in light of lower levels of inflation expected in 2019 and further rate hikes in the US.

- In Brazil, all eyes were on this year's presidential elections, as the results would determine the path of the country's fiscal policy and economy for the year to come. As largely expected, it came down to a run-off between Jair Bolsonaro and Fernando Haddad. With Bolsonaro on the far right, Haddad on the far left, and following one of Brazil's biggest corruption scandal, its worst recession on record along with high levels of unemployment, this was one of the country's most important elections in its history. On 28 October, Jair Bolsonaro of the Social Liberal Party, won the run-off with over 55% of the popular vote. With Brazilians hungry for change (the outgoing president Michel Temer had a 2% approval rating), the country will look to Bolsonaro to back up his hardline rhetoric on security and corruption, which will take effect in 2019.

Corporates

INVESTMENT GRADE

2018 review

EUR MARKET

- As in 2017, only Mexican corporates tapped the single currency market. In May, Pemex printed the largest EM euro-denominated trade through a 4-tranche exercise totalling EUR 3.15bn (Societe Generale acting as bookrunner). The transaction also featured a liability management component, targeting 2019 maturities, as the company continues to actively manage its maturity profile. As expected, America Movil was absent from the market in 2018, following its 2017 announcement that it would continue along its deleveraging path by paying down its redemptions with cash flow rather than tapping the debt market for refinancing.
- Apart from Pemex, we did not see any other IG Mexican corporates access the EUR market in 2018. This was in part due to the aforementioned election, as many corporates chose to get ahead of any potential volatility and take advantage of the strong market last year. Both Sigma Alimentos and Nemark, subsidiaries of Alfa, issued inaugural euro bonds last year.

USD Market

- The US dollar market continued to be the market of reference for the region's corporate issuers.
- Much like the euro market, the dollar market was dominated by the Mexican corporate, Pemex, as the company completed two funding exercises on both sides of the year. The company's first approach to the market in February included a 10Y and 30Y for a total of USD 4bn across the tranches. Most recently, in October, Pemex issued a USD 2bn long 10Y. With a book 5x oversubscribed, the company was able to tighten pricing by 30bp from initial price talk (IPT), confirming that demand remains strong not only for the sector but for Mexican risk as well.

- Adding to volatility within Latin America, Argentina experienced a currency crisis which saw the USD/ARS exchange rate reach a high of 41 in October after opening the year at 17.5. With the monetary tightening that followed, it is now a question of ascertaining the depth and length of the recession. In a bid to stabilise inflation and clarify its financing programme as a whole, the IMF announced in early September that it would increase its resources to the country by USD 19bn, bringing the total amount of the programme to USD 57.4bn by the end of 2021. This economic slowdown and volatility has put pressure on Argentinian corporates. We expect the country to start managing its deficit and stabilising inflation expectations as it attempts to pull itself out of this most recent recession.

- Apart from Pemex, Mexican IG corporate Sigma Alimentos issued a USD 500m 10Y through their Dutch SVP Sigma Finance Netherlands BV. This was their first approach to the dollar market since May 2016.
- In Chile, Enel Chile, a 61.9% owned subsidiary of Italian utility Enel SPA, issued USD 1bn in June to finance outstanding debt and for general corporate purposes. Additionally, the state-owned copper mining company Codelco took advantage of a strong Formosa market and issued an inaugural USD 600m 30Y Formosa at 4.85% to further diversify their investor base. ENAP completed its 2018 funding in the final week of October, tapping the dollar market for USD 680m 11Y notes.
- Lastly, in Brazil, Suzano, the largest pulp and paper company in Latin America, issued a USD 1bn long 10Y in September to finance its merger with Fibria Celulose SA and pay the related fees and expenses. Following a year-long widening in their outstanding secondaries, Suzano tapped the market as soon as volatility began to ease and spreads recovered to Q1/Q2 levels.

2019 Forecast

- Following the appointment of AMLO in Mexico, we expect to see more Mexican corporates emerge in 2019 as the new government settles in. After two years of absence from the primary market, we may see America Movil refinance their USD 1.1bn and EUR 1.15bn maturities. Meanwhile, a challenging market environment in Argentina is likely to keep many corporates on the sidelines for 2019, and following the election of Jair Bolsonaro in Brazil corporates will need to wait for further clarity on his policies. Trade, commodity prices, and the path of the Fed will all be factors closely monitored by Latin American corporates in 2019.

Financial institutions

2018 Review

USD Market

- As in 2017, financial supply was light from Latin American banks with just USD 5.7bn all year, compared with USD 10.8bn last year. Mexican and Brazilian banks made up the lion's share of issuance with USD 2.3bn and USD 2bn respectively.
- The majority of issuance came in H1, as banks looked to get ahead of any volatility around the elections in the region, with only USD 1.6bn issued in H2. Banco Estado, the largest bank in Chile in terms of customers and geographic coverage, kicked the year off with a USD 500m 3Y, printing at T+65 in January. This was the first time Banco Estado accessed the dollar market at

benchmark size since February 2012. The trade was 2.8x oversubscribed, allowing the company to tighten pricing 15bp from IPT to final price. Both Interbank and BBVA followed in January with a USD 200m 5Y and USD 1bn 15Y respectively.

2019 forecast

- As the new Mexican and Brazilian presidents settle in, there should be more clarity in the region. We expect Chilean banks to continue to tap the market, and Mexican and Brazilian banks to benefit from the new administrations. In terms of issuance, with year-to-date issuance at a modest USD 6bn, we expect a slight uptick next year.

Public sector

2018 review

EUR MARKET

- The euro market started the year with a bang as Mexico and Chile both accessed the market in January. Mexico came in just two weeks prior to Chile with a EUR 1.5bn 10Y, while Chile came to the market with a EUR 830m 10Y. Chile's 10Y was very well received by the market and demonstrated ongoing demand for top-rated Latin American sovereigns, printing with zero net interest cost (NIC).
- Unfortunately, only one other SSA tapped the euro market in 2018 on the heels of Mexico and Chile's fast entry. The CAF Latin American development bank hit the market twice: in February with a EUR1bn 7Y, followed by a EUR 500m 5Y exactly four months later in June. Both trades were well bid and printed with single-digit NIC.

(USD 2bn 10Y) rounded out sovereign issuance in January. All told, USD 18.7bn was issued across five issuers in the first month of the year.

- In H1 we also saw the Dominican Republic (Ba3/BB-) issue a USD 1bn 30Y, Paraguay (Ba1/BB) come to the market with a USD 530m 30Y, Panama issue a USD 1.75bn 32Y which was very well bid, and Uruguay close out H1 with a USD 1.75bn 37Y in April.
- Post summer, seasoned dollar issuer Colombia was in the market with a dual tranche USD 1.5bn long 10Y alongside a USD 500m tap of their outstanding June 2045's. The proceeds of the 2029 tranche are expected to go towards a cash tender offer of their outstanding 7.375% notes due March 2019. This marked yet another example of Latin American sovereigns taking advantage of low rates to managing short-term liabilities.
- We saw multiple sovereigns come to market in local currency. This was the case for Chile, the Dominican Republic, and the province of Buenos Aires. This highlights international investors' appetite for local bonds.

2019 forecast

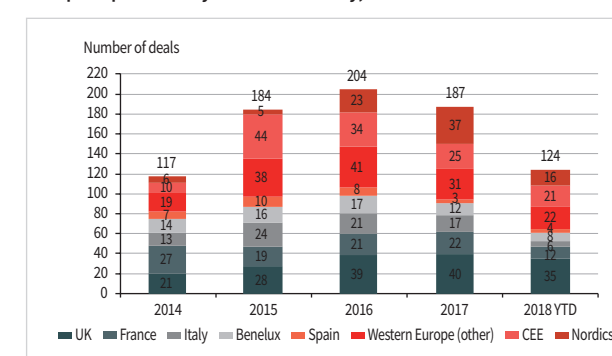
- We expect supply in 2019 to be driven by a number of factors: the trend in US rates, trade negotiations between the US and other countries in North and South America, and commodity prices. The path of the US dollar will certainly affect appetite for EM paper as well. With the Mexican and Brazilian presidential elections over and Argentina attempting to extricate itself from recession, 2019 will be a defining year for Latin America. We expect USD issuance to slow in 2019, as Argentina's USD 9bn trade this year pushed up 2018 issuance volumes.

LIABILITY MANAGEMENT

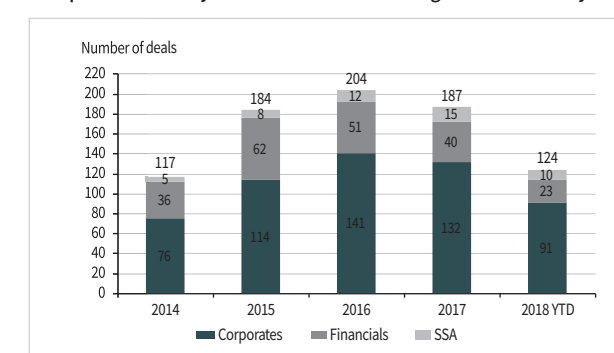
OVERVIEW

- The liability management (LM) market has seen a noticeable decline in 2018, with 124 transactions executed in the European markets in 2018 year-to-date or ~25% less compared to around 166 transactions for the same period last year.
- LM activity mirrored the weak primary market which experienced increased volatility since last May, in light of Italian political jitters, increased US sanctions against Russia, and trade war talks between US, China and EU.

Sharp drop in activity observed in Italy, France and the Nordics

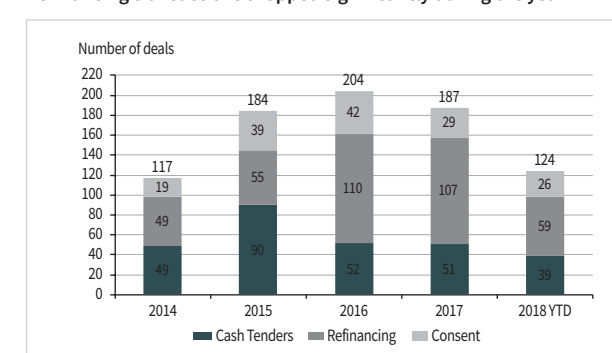


European LM activity declined in 2018 reflecting market volatility



Source: SG CIB Analytics

Refinancing transactions dropped significantly during the year



Source: SG CIB Analytics

CORPORATES

2018 review and 2019 forecast

- Due to weaker primary market conditions, the number of refinancing transactions plummeted by almost 50% reaching 37 year-to-date versus 72 during the same period last year. Italian companies, the second keenest users of LM techniques in continental Europe after France, have suffered the most with only three transactions seeing light this year versus 11 in 2017. Finland has also decreased its contribution to five mandates against 13 last year, which was a year of unusually high activity for Finland.
- We count 32 cash tender offers, led by issuers in the utility (Alpiq and Centrica) as well as metals & mining

sectors (ArcelorMittal and Rio Tinto) who used profit recovery from higher commodities prices to decrease gross debt and financing costs.

- Negative tender yield offers have dropped by more than half, as the secondary spreads of European corporate bonds have widened as a consequence of the ECB asset purchases programme steady decrease in volumes.
- Consent solicitations continued last year's pace with 22 transactions executed so far. The most prominent of these were in the context of M&A / restructuring activity, where issuers targeted all their outstanding

bonds to gain bondholders' approval: UK-based Thames Water and Yorkshire Water looking to simplify corporate structure following negative press coverage hinting at tax avoidance, Unilever in Netherlands moving from dual to single parent company, the

French real-estate company Gecina pushing debt up following the Eurosic/Fonciere de Paris acquisition.

- In 2019, we expect LM to continue to reflect primary market movements.

FINANCIAL INSTITUTIONS

2018 review and 2019 forecast

- Financial institutions have maintained the regular pace as in 2017 with 23 LM exercises in executed so far compared to 40 last year, with banks accounting for almost half of these transactions.
- Banks equally used pure cash tenders and refinancing tools to optimise their capital structure:
 - In the context of bank bail-out, Intesa Sanpaolo executed an any-and-all cash tender on EUR 4.75bn senior bonds issued by former Venetian banks Banca Popolare di Vicenza and Veneto Banca rescued last year; and the Portuguese Novo Banco (created out of the failure of Banco Espírito Santo) seeking fresh funding from investors, partially refinanced EUR 3.5bn of senior notes with a new Tier-2 bond.
 - In order to alleviate the impact of the new US tax reform, Deutsche Bank conducted an 'any-and-all' exchange offer on eight USD bonds (USD 9.7bn outstanding) to change the direct issuing entity to the New York branch.
 - Following the escalation of US sanctions in April, Russian banks such as Credit Bank of Moscow and TransKapitalBank repurchased opportunistically some of their senior and subordinated bonds trading below par.
- Diversified financials accounted for ~30% of transactions which came out of the UK (Nationwide, Provident Financial and Together FS) and Sweden (Hoist Finance and Investor AB), all looking to refinance existing debt.
- As last year, insurance LM activity was dominated by UK names such as Standard Life Aberdeen, following a group restructuring and a change in the regulatory oversight, Prudential in the context of M&G divestment, and Old Mutual.
- For 2019, we expect LM activity to remain steady for FIs as they continue to optimise their capital structure with respect to not only Basel-III / CRD IV, but also to TLAC and MREL requirements.

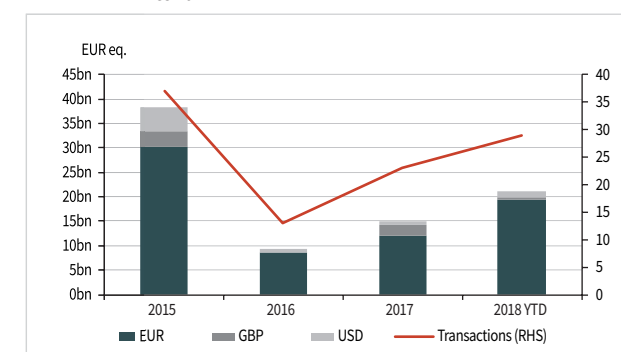
HYBRID CAPITAL MARKET

CORPORATES

PRIMARY MARKET ACTIVITY

2018 review

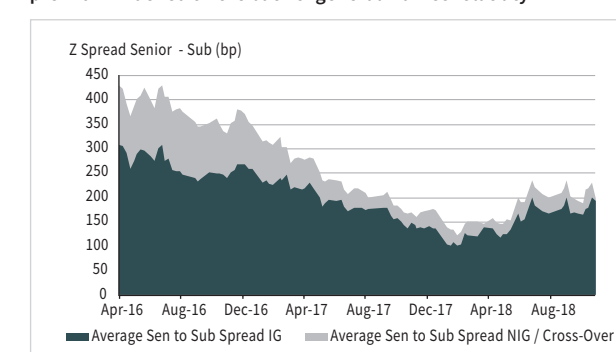
European corporate hybrid supply picked up slightly on the back of revised S&P criteria



Source: SG CIB Analytics, Dealogic

- In 2018, corporate hybrid issuance grew on the back of both favourable market conditions and change in S&P hybrid methodology allowing for early refinancing within the first five years of issuance.
- Year-to-date, European corporate issued EUR 21bn eq. of hybrids. Volumes were skewed towards the first half of the year which provided 70% of total new hybrid supply: March to June saw ~EUR 3bn eq. of volume each month.
- After reaching its lowest point ever in January 2018 (~112 bp), the average subordination premium stayed steady at ~140 bp up till end of May/June when it widened by more than 80 bp as investors had to navigate Italian political risk and escalating protectionist standoff between the US, and China and the EU. As conditions improved, the average subordination premium shored at ~180 bp. With the ECB CSPP ending in December, we see limited scope for further tightening.
- Main developments in 2018:
 - Following S&P's January 2018 revised criteria, several issuers refinanced some of their outstanding hybrid bonds prior to the first call date using liability management techniques (Alliander, Telefonica, Enel, EDF).
 - M&A activity continued to be an important driver of hybrid issuances: Unibail-Rodamco issued mid-April a dual-tranche EUR 2bn hybrid to buy the Australian

After reaching historic lows in early 2018, the average subordination premium widened on the back of general market volatility



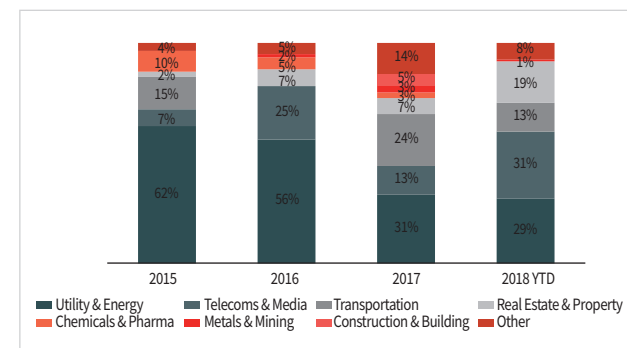
Source: SG CIB Analytics, Dealogic

Westfield, Elia placed in early September a EUR 700m PerpNC5 to finance the acquisition of an additional 20% stake in Eurogrid, followed by Vodafone which issued a EUR 4.2bn eq. multi-tranche / multi-currency deal to partially back the acquisition of Liberty Global's cable networks in Germany and eastern Europe.

- The Real Estate sector was the third most keen user of hybrids, with issuers such as CPI Property Group and Akelius accessing the market for the first time.
- We continued to see green bond hybrid issuances from the utility sector with Engie opening the year with its inaugural EUR 1bn PerpNC5, followed by Iberdrola late March pricing its third green transaction.
- All outstanding hybrids with first-call dates in 2018 were redeemed, but not all were replaced, despite S&P general replacement requirement:
 - Telcos such as Telekom Austria, Koninklijke KPN called their outstanding hybrids without replacing them. The bonds were issued in 2013 and since then companies have continuously improved their credit metrics. As this was Telekom Austria's only hybrid bond, the non-replacement has no adverse rating impact. KPN on the other side still has ~EUR 1bn eq. outstanding – the company has expressed its commitment to hybrid capital securities, enabling it to maintain the 50% equity credit from S&P.

- On 15 March, Veolia announced its intention to redeem EUR 1.5bn eq. of EUR and GBP deeply subordinated bonds following a successful transformation and improved financial health. S&P had previously removed their equity

In 2018, corporate hybrid supply came primarily from the utility & energy and telecom sectors



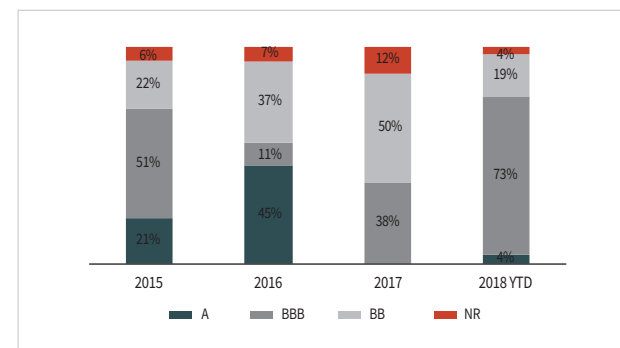
Source: SG CIB Analytics, Dealogic. European corporates.

2019 forecast

- In 2019, we expect more issuers to consider early refinancing of their hybrids (upcoming redemptions of ~EUR 5.8bn eq. in 2019 and ~EUR 14.7bn eq. in 2020) as well as potential M&A driven transactions. We expect the following issuance volumes:

content in May 2016 to reflect the lack of clarity about management's intention to replace the instruments and little incentive to do so in light of stronger financial health.

In 2018, IG rated corporate hybrids took over the market (instrument rating)



Source: SG CIB Analytics, Dealogic. European corporates.

- In EUR, a total of EUR 20bn of issuance,
- In USD, a total of USD 2bn of issuance,
- In GBP, a total of GBP 1bn of issuance.

DEVELOPMENTS IN THE CORPORATE HYBRID SPACE

S&P amends the Hybrid methodology

Following the Request for Comment circulated late October 2017, S&P published on 16 January the final version of the amendments to their April 2013 criteria ("Methodology and Assumptions: Assigning Equity Content to Corporate Entity and North American Insurance Holding Company Hybrid Capital Instruments"). Key takeaways of S&P's revised criteria are:

High Equity Content (HEC) hybrids

- HEC (100% equity) is only achievable by mandatory convertible instruments and/or government-held instruments.
- The highest achievable equity content is 50% for standard "fixed income" instruments.
- The creation of a HEC 75% solution was rejected by S&P as creating additional categories would add unnecessary complexity to the analytical process.

LM within the first five years

- Liability management is possible at any time of a hybrid instrument lifetime, as long as:
 - S&P is comfortable with the issuer's long-term commitment to retain hybrid capital as a layer of capital (meaning that any repurchase should be replaced).
 - The replacement instrument is at least as equity-like as the original hybrid instrument in terms of equity content (replacement by another hybrid or common equity).

- The replacement does not in S&P's "view materially weaken the creditworthiness of the issuer".
- S&P also clarifies its views on a number of LM technicalities:
 - Tender offers:
 - If the new issue is at least equal to the outstanding hybrid, S&P could take the view that the issuer will use it to call the non-tendered remainder of its hybrid and therefore revise the equity content to "minimal" on the full amount of the existing notes. This remains subject to the size and communicated rationale of the new issue.
 - Exchange offers:
 - Accepted by S&P as long as issuance of the new bond takes place before the redemption of original instrument.
 - The residual amount of the existing hybrid will remain eligible for equity content if S&P is confident about the issuer's commitment to maintain the hybrid as a permanent part of its capital structure.
 - If 20% of a hybrid remains outstanding following an exchange offer and is redeemed without replacement, this would not necessarily lead S&P to disqualify equity content on all current and future hybrids. In this context, exercising a clean-up call should not be an issue for S&P.

FINANCIAL INSTITUTIONS

REGULATORY ENVIRONMENT

Banks

Risk reduction measures package CRR 2/CRD 5/BRRD 2

- On 25 May, the Council of the EU agreed on a general approach on the BRRD/CRR/CRD package (drafts of which had originally be circulated by the European Commission in November 2016). This was followed a month later by the Parliament's agreement on the texts. Trilogue discussions started with the Council of the EU and the European Commission in July and are currently ongoing.
- There is agreement on the main points regarding MREL:
 - G-SIIs Pillar 1 (TLAC): standing at 18% of RWA or 6.75% of leverage exposure. Though Parliament suggests a lower level up to January 2022 (i.e. 16% of RWA or 6% of leverage exposure).
 - Pillar 2 MREL calibration: 2*(Pillar 1 + Pillar 2R) + Market Confidence Buffer. The MREL Guidance was deleted and replaced by a mandatory Market Confidence Buffer set at Combined Capital Buffer Requirement (CCBR) minus the Countercyclical Buffer (CCyB).
 - Grandfathering: permanent grandfathering for eligible liabilities not complying with certain criteria (e.g. set-off, redemption approval, acceleration rights).
 - Transition: deadline to meet MREL is set at 1 January 2024 with an intermediate target 1 January 2022.
- The key diverging points include:
 - Minimum subordination requirement: The Council introduces a new reference – the 8% TLOF, with a potential limited inclusion of senior unsecured liabilities – for setting a cap to the minimum subordination requirement for G-SIIs and "top-tier banks", while the Parliament caps the subordination requirement to TLAC levels.
 - Retail Notes Eligibility: While the Council generally excludes retail notes, the Parliament proposes eligibility provided the investment is at least EUR 10,000 and does not exceed 10% of the retail investor's portfolio.
 - Internal TLAC for non-EU GSII's Material Subsidiaries: scaled at 75-90% (instead of 90% currently) under Parliament's proposal, vs. no scaling under the Council's text.
 - Deduction Regime: Parliament suggests extending it to O-SIIs, i.e. deductions apply to any G-SII / O-SII's holdings of MREL liabilities issued by G-SIIs.
 - Redemption Approval Regime: While the Council requires a general prior permission valid for one year, this is waived by the Parliament provided that own funds / the MREL requirement is exceeded by 2.5% RWA.

European authorities (other than the SRB) setting MREL targets

- On 20 December 2017, the Swedish National Debt Office ("SNDO") decided to set the MREL for 10 financial institutions that are critical to the Swedish financial system, out of 162 institutions. These requirements entered into force on 1 January 2018 and are already met by all 10 institutions. The "subordinated liabilities requirement" will only enter into force in 2022.
- On 26 March, the Danish Financial Supervisory Authority (FSA) published the MREL requirements for Danske Bank, Jyske Bank and Sydbank after finalising resolution plans. The requirements need to be met by July 2019. Debt issued before January 2018 that cannot be written down or converted may be used to meet requirement only until January 2022.
- On 13 June 2018, the Bank of England (BoE) published a Statement of Policy on its approach to setting MREL for UK banks, building societies and large investment firms. The BoE published the indicative interim and final MRELs for each of the UK global and domestic systemically important banks.

Basel 4 framework finalised

- On 7 December 2017, following several years of consultation, the Basel Committee on Banking Supervision (BCBS) published its "Basel III: Finalizing post-crisis reforms". The stated objective of the reform is to reduce the excess variability of risk-weighted assets (RWA). Key changes are detailed below:
 - Standardised approach (SA) for credit risk: The BCBS has relaxed the SA's risk weights notably on exposure backed by real estate.
 - Internal ratings-based approaches (IRB): IRB is prohibited for equity exposures, advanced-IRB (A-IRB) is prohibited for large corporates (consolidated revenues > EUR 500m) and bank exposures but foundation IRB (F-IRB) is authorised, a welcome amendment since the 2nd consultation. Parameter level floors have been adjusted downwards slightly and the scaling factor of 1.06 in the IRB formula has been removed. Such amendments were largely expected.
 - Output floor requirements: The BCBS has opted for a 72.5% floor by 2027 with a long phase-in starting from 50% in 2022. No exemption has been granted for the residential real estate portfolio.
 - Disclosure requirements: Banks must disclose two sets of capital ratios including and excluding the application of the floor. In addition, more disclosure around the IRB and SA approach are required going forward.

- Credit value adjustments: Amendments to the framework in order to enhance its risk-sensitivity, strengthen its robustness and improve its consistency.
- Operational risk: introduction of the new standardized approach for operational risk, internal approach prohibited as expected.
- Leverage ratio: The BCBS introduced a G-SII surcharge, under the form of a buffer, which is set at 50% of G-SIIs risk-weighted higher-loss absorbency requirements. The example given with a G-SII in the bucket of 1% risk weight buffer translates in an additional leverage requirement of 0.5%. Binding distribution constraints are attached to this buffer, if not met, similar to the MDA framework for risk-weighted capital buffers.
- Details of the transitional arrangement are summarised below:

Revision	Implementation Date	
SA for credit risk	01-janv-22	
IRB framework	01-janv-22	
CVA framework	01-janv-22	
Operational risk framework	01-janv-22	
Leverage ratio	Existing exposure definition: Jan 2018 Revised exposure definition: Jan 2022 G-SIIs leverage ratio surcharge: Jan 2022	
Ouput floor	Jan 2022: 50% Jan 2023: 55% Jan 2024: 60%	Jan 2025: 65% Jan 2026: 70% Jan 2027: 72.5%

- On 7 May, the European Banking Authority (EBA) announced it would support the European Commission (EC) in the implementation of Basel III framework in the EU:
 - The EC asked the EBA to prepare by June 2019 a comprehensive analysis to assess the potential impact of the different elements concerning the Basel reform on the EU banking sector and the wider economy.
 - The EBA will provide both a quantitative and qualitative assessment of the new Basel III framework. As a preliminary step, the EBA launched an overall data collection exercise, in which smaller and less complex banks, as well as institutions with specific business models, are invited to participate.

Increase in countercyclical and systemic buffers

- On 23 May, the EBA updated the list of Other Systemically Important Institutions (O-SIIs) in the EU, which results in higher loss absorbency requirements set by the relevant authorities, with a CET1 capital buffer of up to 2% RWA. A total of 200 institutions are identified as O-SII.
- On 29 June, the Finnish Supervisory Authority decided to impose a systemic risk buffer of 3% on Nordea, 2% on Op Group, 1.5% on Municipality Finance and 1% on other Finnish credit institutions. The requirement enters into effect on 1 July 2019.
- In 2018, several European authorities increased the countercyclical buffers (CCyB):
 - France: from 0% to 0.25%, effective from 1 July 2019

- Ireland: from 0% to 1.00%, effective from 5 July 2019
- Sweden: from 2% to 2.5%, effective from 19 September 2019
- Amongst the reasons for activating or increasing the CCyBs, we note rapid growth in the domestic economy.

Harmonisation of insolvency regimes

- The EU directive on the harmonisation of the bank creditor hierarchy requires transposition into member state law by the end of 2018:
- On 23 December 2017, the Italian Budget Law (entered into force on 1 January 2018) introduced the “senior non-preferred” debt category (strumenti di debito chirografario di secondo livello), ranking in insolvency below senior unsecured instruments but above other subordinated instruments.
 - On 9 March, the Dutch Legislator submitted a bill to the Dutch Parliament designed to introduce the senior non-preferred debt for banks and credit institutions. The law was passed on 16 October.
 - On 12 March, the Austrian Finance Ministry published a draft law transposing the EU directive on the ranking of unsecured debt instruments in bank insolvency proceedings. The new law applicable from 29 December 2018 was passed before summer break.
 - On 14 March, a draft law introducing in the Danish insolvency regime for banks senior non-preferred instruments was presented to the Danish Parliament. The bill was adopted on 29 May, with effect from 1 July 2018 and retroactive effect from 1 January 2018.
 - Germany amended the German Banking Act (Kreditwesengesetz), introducing the non-preferred senior loss-absorbing debt class with effect as of July 21.
 - On 13 September, Her Majesty’s Treasury launched a consultation to transpose the EU Bank Creditor Hierarchy Directive via amendments to the ‘Banks and Building Societies (Depositor Preference and Priorities) Order’. The draft amendment creates new classes within the non-preferential debt:
 - “ordinary non-preferential debt” which corresponds to the non-preferential debt in the current regime
 - “secondary non-preferential debt”, which ranks below ordinary non-preferential debt as required by the EU Bank Creditor Hierarchy Directive.
 - On 18 September, the Polish Council of Ministers adopted the draft Act that introduces the senior non-preferred debt category in the ranking of debt instrument in the insolvency hierarchy. The amended law will enter into force on 1 January 2019.

Dealing with failing banks

- On 24 February, following the decision by the ECB on 23 February to declare the third largest bank in Latvia - ABLV Bank AS and its subsidiary ABLV Bank Luxembourg SA - as ‘failing or likely to fail’ (EUR 2.4bn assets), the Single Resolution Board (SRB) decided that resolution action was not necessary since it is not in the public interest for these banks. As these banks did not provide critical functions, and their failure was not expected to have a significant adverse impact on

- financial stability in these two countries or Member States, they would be wound up under their countries’ laws.
- On 6 August, following a complaint from a group of bondholders who have filed legal actions against the SRB and the European Commission, the SRB published a non-confidential version of the “Valuation 3” report performed by Deloitte on the resolution of Banco Popular Español (BPE) in 2017 (in which capital instruments were written down or converted and all shares were then transferred to Banco Santander for EUR 1):
 - The ‘Valuation 3’ report comes to the conclusion that the shareholders and creditors whose instruments were written down or converted and transferred in resolution would not have received a better treatment if BPE had been wound up under normal insolvency proceedings (i.e. SRB complying with the ‘no creditor worse off than in liquidation’ principle).
 - Alongside the release of the report, the SRB published a notice regarding its decision not to compensate the former shareholders and creditors of BPE.
- Tax treatment of AT1 coupons**
- On 29 June, the Dutch government announced plans to end the favourable tax treatment of contingent convertible securities. From 1 January 2019 onward, coupons paid on “Coco” instruments (bank AT1 and insurance RT1) would no longer be tax deductible.
 - This comes on the back of the EU Commission opening an investigation on state aid in the Netherlands. The Dutch situation is relatively specific as the tax deductibility of Coco coupons was secured by an ad-hoc price of legislation which benefits only a small group of companies, and hence more akin to state aid.
 - After Sweden in 2016, the Netherlands are the second EU country to come back on tax deductibility of AT1 coupons. A number of issuers have communicated they will not use tax calls to redeem the instruments impacted.
 - On 29 October, the UK Treasury published (as part of the Budget package) changes to tax rules for hybrid capital instruments: hybrids (long-dated or perpetual instruments, which may allow for deferral or cancellation of interest, share conversion or write-down) issued by any sector are to be tax deductible and not subject to withholding tax, subject to certain conditions, from 1 January 2019. While UK bank hybrid instruments have been deductible, tax issues were expected to arise from internal MREL instruments being required to include contractual triggers, which may have led to an equity-like tax treatment under currently applicable rules.
- EBA stress test results**
- On 5 November, the EBA published the results of the 2018 EU-wide stress test of 48 banks from 15 EU and EEA countries, covering broadly 70% of total EU banking sector assets.

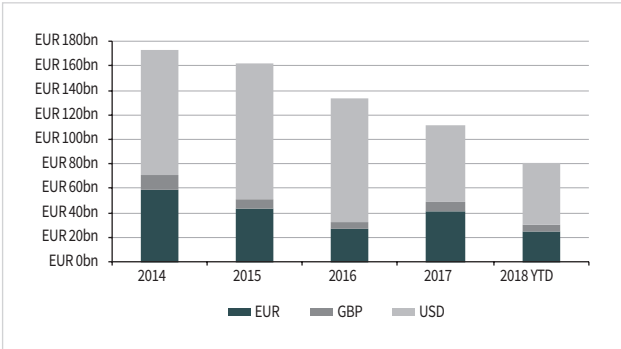
- The objective of the exercise is to assess, in a consistent way, the resilience of banks to a common set of adverse shocks and one of the main features of the 2018 exercise is the implementation of the IFRS 9.
- The adverse scenario has an impact of -395 bps on banks' CET1 fully loaded capital ratio (-410 bps on a transitional basis), leading to a 10.1% CET1 capital ratio at the end of 2020 (10.3% on a transitional basis).
- The 2018 EU-wide stress test does not contain a defined pass/fail threshold. However, the exercise is an important supervisory tool and an input for the Pillar 2 assessment of banks.

PRIMARY MARKET ACTIVITY

2018 review

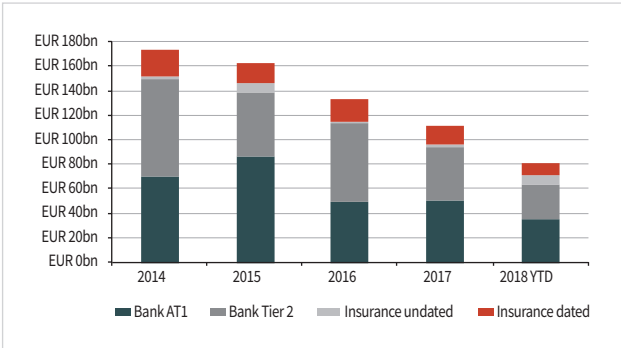
- The financial hybrid market has been changing continuously over the past four years in response to the evolving regulatory environment. In 2018, higher market volatility and rising interest rates affected the supply of AT1 and T2 issuances. Nevertheless, SNP/ Holdco volumes remained robust.
- Capital issuance remains driven by the evolving regulatory environment (MREL and TLAC, capital buffers, Pillar 2, Basel 4).
- Below data includes bank and insurance Tier 1 and Tier 2, but excludes senior Holdco and SNP issuances.

Lower supply in 2018 (vs. 2017) both in EUR and USD issuances



Source: SG CIB Analytics, Dealogic. Global issuances, excluding senior Holdco and SNP

Features of 2018 bank capital instrument issuances



Source: SG CIB Analytics, Dealogic. Global issuances (EUR, GBP, USD), excluding senior Holdco and SNP.

EUR MARKET

Euro-denominated subordinated volumes (banks and insurance) stood at EUR 25bn as of mid-November 2018, representing a 40% decrease from EUR 41bn in 2017 driven mainly by market volatility and uncertainty around final regulation package.

- We saw lower supply especially from banks which accounted for EUR 20bn of issuance (vs. EUR 35bn in 2017), while insurance companies printed just over EUR 5bn (vs. EUR 6bn in 2017).
- In terms of split between AT1 and Tier 2, we saw EUR 9bn of AT1 and EUR 16bn of Tier 2 issuances.
- 80% of volumes came from Southern and Western Europe, namely Spain, France and Belgium.

USD MARKET

In the USD-denominated subordinated market, the volume of issues landed at USD 60bn year-to-date compared to USD 70bn in 2017. Banks dominated the deal flow accounting for 82% of volumes.

- In terms of regional split, 33% of the supply came from US issuers, followed by UK (17%), Switzerland / France accounting for 11% each.
- Volumes were skewed towards AT1 which accounted for USD 38bn, while Tier 2 supply reached USD 22bn.

GBP MARKET

Volumes in the sterling market were as usual low, with banks issuing GBP 2bn and insurers GBP 3bn year-to-date.

2019 forecast

On the financial institutions side, we expect full focus on MREL / TLAC ahead of regulatory deadlines. We forecast the following volumes of subordinated debt for FY 2019:

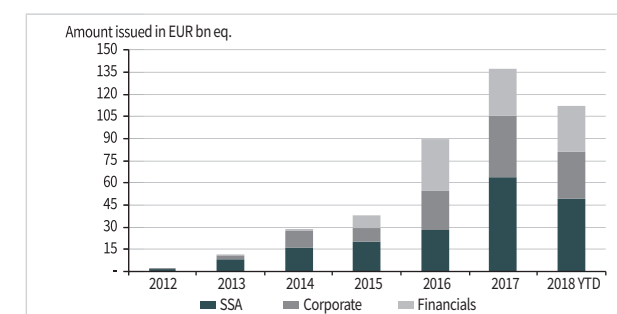
- In EUR, a total of EUR 35bn of issuance or an increase of around 25% vs. 2018 full-year expected.
- In USD, a total of USD 70bn of issuance or an increase of 8% vs. 2018 full-year expected.
- In GBP, a total of GBP 8bn of issuance compared to GBP 6bn 2018 full-year expected.

GREEN AND SOCIAL BONDS

2018 review

- In 2018, the pace of issuance volumes in the green and social bond market were a bit below that of 2017 with EUR 112bn eq. in year-to-date supply (~EUR 120bn eq. expected for the full year compared with EUR 137bn eq. for FY 2017), representing over 217 different issuers year-to-date compared with 255 for FY 2017.

Sustainable bond market underwhelming due to market volatility



Source: SG CIB, Global issuances

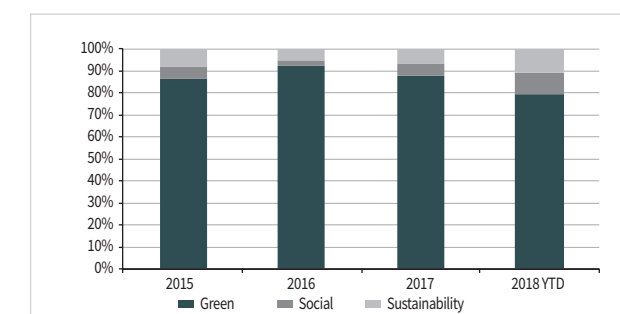
- Green bonds continue to dominate the sustainable bond market (80%) – sovereigns have been very present and featured some iconic transactions from France (EUR 4bn tap of the OATgr 2039), the Kingdom of Belgium (EUR 4.5bn inaugural green bond), Ireland (EUR 3bn inaugural green bond) and Poland (second green bond, EUR 1bn). Utilities (EUR 14.5bn eq.) and Real Estate companies (EUR 4.5bn eq.) were driving the corporate issuance.
- Following the publication of ICMA Social Bond Principles in 2017, social bonds saw a steady flow this year from the usual suspects (CDP in Italy, NWB Bank in Netherlands, BPCE in France) and we expect this type of investment solution to foster as it enables both issuers and investors to contribute to the United Nations Sustainable Development Goals.
- We notice some smaller but interesting transactions such as CIBC's inaugural transaction dedicated to women leadership or EIB's Sustainable Awareness Bond around protection of water and marine sources.
- Coming back to the European market, euro-denominated deals represented more than half of 2018 year-to-date issuance volumes. The predominance of the euro reflects the strong and growing demand for sustainable financial assets from European investors. Not only does the vast majority of European institutional investors take into account environmental, social and governance (ESG) criteria in their investment decisions, there is also strong support from the political and regulatory environment.

2019 forecast

- Although 2018 issuance volumes are likely to be slightly below those of 2017 as above mentioned, we expect the

- European issuers accounted for 50% of issued volumes in 2018 year-to-date, followed by Asia (29%).
- In terms of issuer type, sovereigns, supranationals and agencies (SSAs) issued 44% of total volumes, with corporates and financial institutions disputing the second place.

Green bonds still make up the bulk of sustainable bond issuance



Source: SG CIB, Global issuances

- green, social and sustainability bond market to somewhat grow next year. The SSA sector should still represent a significant portion of issuance volumes, with possibly new sovereigns entering the market, but corporates may also be more active in 2019 following a relatively modest year. We expect Europe to remain the first region of issuance, followed by Asia.
- In terms of regulations and initiatives, the EU Action Plan on Sustainable Finance to continue to dominate the landscape. The Technical Expert Group will conduct consultations throughout Q4 2018 and Q1 2019 on four key areas: technical screening criteria for environmentally sustainable economic activities under the EU taxonomy; EU green bond standard; minimum standards for the methodology of "low carbon" and "positive carbon impact" indices, and minimum disclosure requirements on environmental, social and governance (ESG) integration in the methodology benchmarks; and metrics allowing improving disclosure on climate-related information. Following this consultation period, the TEG is expected to publish a report in Q2 2019, laying the foundations for a series of regulatory proposals.
- In addition to the EU Action Plan, many initiatives will continue to progress, in the likes of the TCFD (climate disclosures), the UK PRA (management of risks from climate change) and FCA (impacts of climate change).
- The increasing number of initiatives and regulations pushing for a systematic inclusion of climate risks and transition in more and more business areas, and in particular finance, supports the growth of the sustainability bond market.

ASSET-BACKED PRODUCTS SECURITISATION & DISTRIBUTION

EUROPEAN MARKET

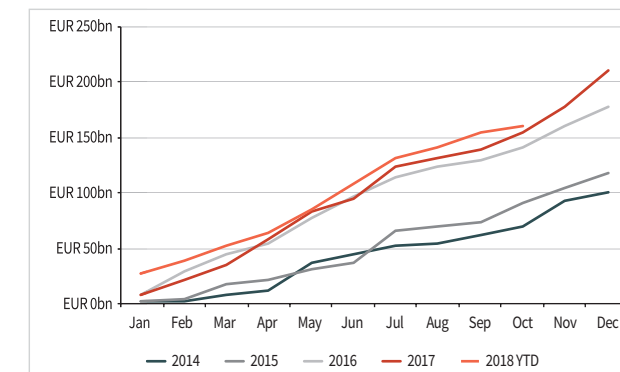
2018 review and 2019 forecast: the beginning of a new era?

- Year-to-date¹ issuance volumes (including both retained and public) stood at around EUR 160bn, slightly above last year's volumes which in turn were above the 2016 levels. The split between public and retained issuances stabilised around 55%/45%, confirming the decreasing trend of the retained rate already observed last year.
- New issuances were achieved on the backdrop of an uncertain regulatory environment for market participants. Clarifications (in particular the regulatory technical standards) in relation to the new securitisation regulation (STS regulation²) are awaited from the European Banking Authority (EBA).
- The trend of tightening spreads observed over the last 2 years bottomed out toward the end of Q1 2018, with some German auto asset-backed securities (ABS) flirting with the 10 bp mark. The second half of the year saw spreads starting to widen, although still well below their two-year level.
- The figures above exclude synthetic securitisations/ significant risk transfer securitisations (SRT). Due to their private or even bilateral nature, the actual size of these transactions remains difficult to measure. Nevertheless, it is estimated that this year's volume will exceed that of 2017 (EUR 25bn). We expect the SRT market to remain active, with more protection buyers and new protection sellers (in particular insurers) entering the market, and most underlying asset classes to keep diversifying. We also anticipate the guidelines arising from the ECB consulting paper to increasingly impact the structure of those transactions, and we expect an adjustment of the structures (thickening of equity and/or mezzanine tranches) on the backdrop of the new regulatory formulas. Finally, in addition to the regulatory benefit, we expect these transactions to remain a way to mitigate the implementation of IFRS staging.
- The year started on a strong footing, dominated by UK residential mortgage-backed securities (RMBS) deals with several new issuers coming to the market for the purposes of funding diversification. This strong push is largely attributable to the Bank of England's closure of the TFS funding scheme in February 2018. UK domestic banks anticipated this change well, with some issuers resuming their existing RMBS programmes or new joiners opening new programmes. Their aim was to maintain diversity in their sources of funding post-scheme. To a certain extent, banks in the eurozone faced a similar change after the first series of Targeted Long-Term Refinancing Operations ("TLTRO") matured in September 2018.
- Earlier this year, the GBP/USD cross currency basis encouraged UK issuers to sell a number of tranches in USD. The deals were well received and UK issuers took advantage of them early this year. However, today the increase in cross currency basis versus USD (at least for EUR and GBP) has led to less supportive market conditions. All else being equal this could be a concern next year with a number of programmes coming back to their domestic market instead of accessing the USD market due to the deterioration of the conditions. This could push UK RMBS issuance volumes denominated in GBP higher next year with supply potentially pushing spreads wider.
- The situation looks far less favourable for continental Europe due to a number of lingering uncertainties. The end of TLTRO has indeed been well anticipated, and to that extent issuers have been preparing alternatives for some time now. The big question now, however, is of course the EBA's consultation on the subject of STS securitisation. As it stands, the EBA has announced it is running with a delay of roughly three months, meaning that the delegated act should only be available at the end of Q1 2019. This could freeze the market over this period.

1. End of September 2018
2. Simple, Transparent and Standardised (which will enter into force on 1 January 2019)

- As evidenced from the chart below, the end of the year is traditionally one of the busiest periods. Due to the absence of clarification on the STS label, acceleration this year could be even stronger than those observed previously, subject to demand rising accordingly.

European ABS cumulated volumes (in EUR bn) (public and retained)



Source: SG Cross Asset Research, Bloomberg, Informa GM (as of 30 September 2018)

- The increase in the number of issuers and pools had a positive impact on retained deals. Indeed, issuers were able to pick and choose which tranche they wanted to sell and which they wanted to keep. But in 2019, retained deals could be hard hit by the remaining uncertainty regarding STS regulation, as the Eurosystem will ultimately only accept STS transactions from 1 January 2019. This could deter a number of issuers from structuring for retained purposes.
- We see reasons to be optimistic about the ABS market's evolution. However, the big question mark is the timing of the EBA's publication of its regulatory technical standards (RTS).
- In October 2018, Belgian market association European Money Markets Institute (EMMI) opened a second public consultation on the transfer to a new European Benchmark Regulation (BMR) compliant EURIBOR reference, providing more details about its methodology. This is currently the most credible and the most advanced proposal for moving to a new reference. Following this consultation period, and if successful, the EMMI will apply for BMR certification before mid-2019.
- The EMMI's methodology proposes a calculation based on three successive steps, levels 1- 3 and in particular avoiding transactions with non-financial corporates. Level 1 is based on transactions by the defined tenor from the previous target day (first formulaic approach by EMMI). Level 2 is based on transactions across the money market maturity spectrum and from recent target days (second formulaic approach). Level 3 is based on transactions from a range of markets closely related to the unsecured euro money market using a combination of modelling techniques and/or panel's bank judgments under EMMI guidelines.
- Early results show limited discrepancies between the existing and "new" references - between -1 and -5 bp - which should further decrease as short-term rates normalise to positive levels. The "new" reference will be an offer-side interest rate reference. A gradual implementation over H2 2019 would avoid abrupt level

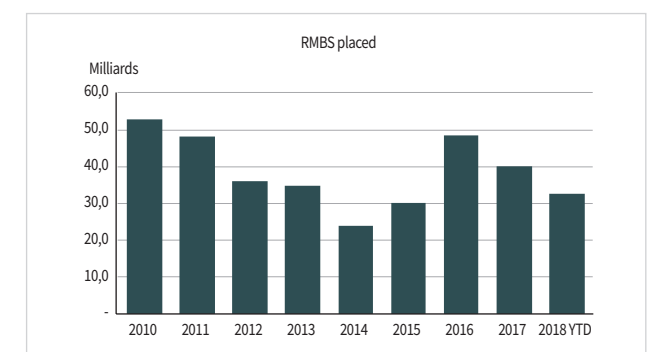
or volatility impact on fixings while the likelihood of a postponement of the BMR deadline until end-2021 has increased recently given the challenging timeframe of the Euro Short-Term Rate ("ESTER").

- Over the first three quarters of 2018, the most active submarkets were RMBS and auto ABS with 38 and 34 new issuances respectively. While totally absent from the screens during 2017, this year saw several commercial mortgage-backed securities (CMBS) transactions being issued.

RMBS

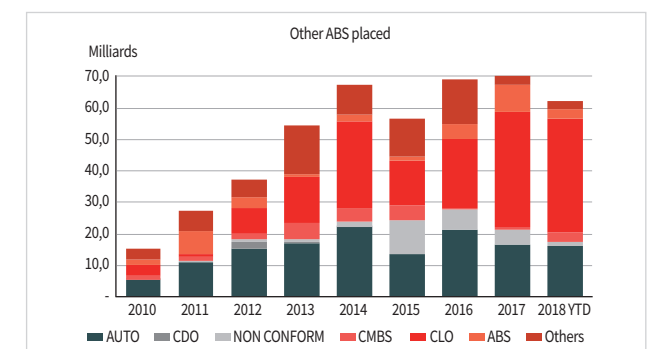
- This is still the largest contributing sub-sector (over each of the three quarters, RMBS represented 50% of the transactions), with two major jurisdictions, the UK and the Netherlands. The former could at some point be impacted by the Brexit developments. The gradual redemption of the TLTRO should boost RMBS volumes up for continental Europe in 2019.

European publicly-placed prime RMBS cumulated volumes (in EUR bn)



Source: SG Cross Asset research /rates (2018 YTD - as of 2 November 2018)

European publicly placed ABS cumulated volumes by asset class (excl. RMBS) (in EUR bn)



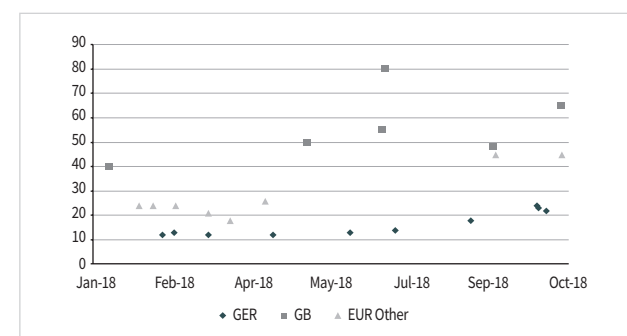
Source: SG Cross Asset research /rates (2018 YTD - as of 2 November 2018)

European Consumer ABS

- It continues to be the bread and butter of securitisation in 2018 and should continue to contribute significantly going into 2019, albeit we expect few if any transactions in Q1 2019 due to the new securitisation regulation. The auto loan and lease ABS primary market activity was very strong in Q1 and extremely busy in the October period, with many originators trying to bring their transactions into the market under the existing securitisation framework rather than in 2019, as the regulatory technical standards are not expected before the end of Q1 2019.

- The long-lasting period of consumer ABS spread tightening seen over the last years bottomed out in March/April 2018 with a spread widening since then. Nevertheless, the investor base is firmly in place and is a strong support for the market. However, there are certainly concerns about the Diesel and the residual value of vehicles on the one hand and concerns about the uncertainty due to the new securitisation regulation and LCR treatment on the other hand. In particular,

Senior auto ABS – discount margins at pricing
(above 1m Euribor/1m Libor)



Source: SG Cross Asset research/rates

Non-Performing Loans (NPLs)

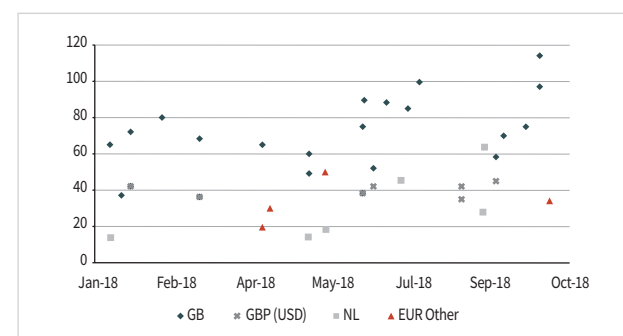
Regulatory Environment & General trends

- The ECB's final guidance on NPLs published in March 2017, was a cornerstone in addressing NPLs across the euro area. It outlined measures, processes and best practices which banks should incorporate when tackling NPLs, an issue which, despite the decreasing NPL ratio across the EU, remains a vulnerability for the European banking sector as a whole.
- As a result of the EU regulator's pressure to address the NPL issue, banks have continued to improve the quality of their loans' portfolio. In Q2 2018, the EU ratio of NPLs to total loans kept a downward trend and achieved a level of 3.6%, the lowest since the NPL definition was harmonised across European countries. The portion

spreads have further widened in late October, also due to the heavy supply in the primary ABS market across asset classes in both EUR and GBP.

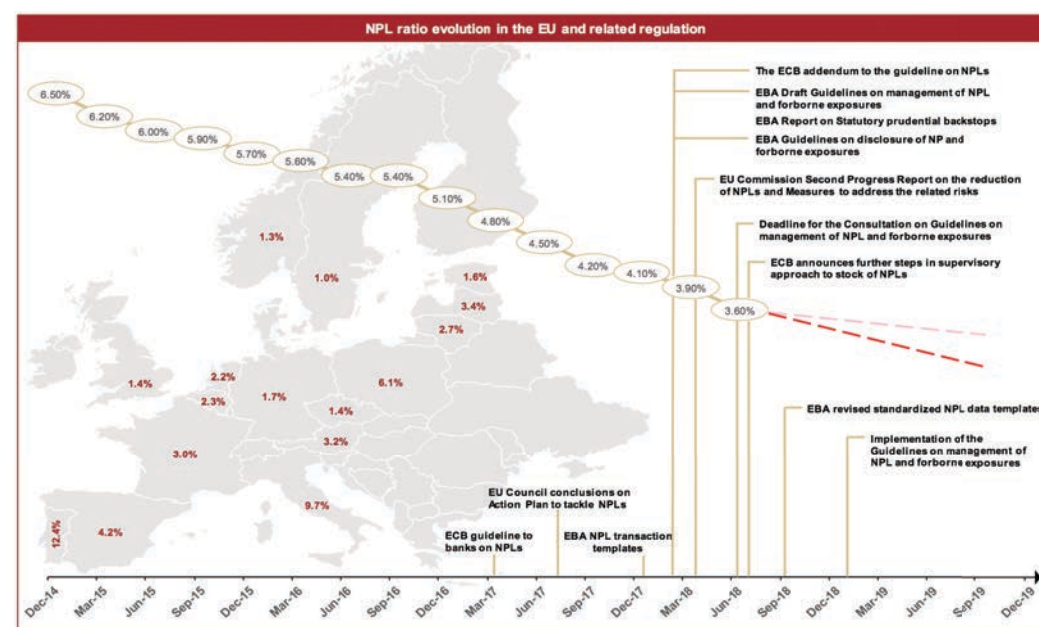
- The year-end ABS pipeline is fully loaded, as issuers focus to have their transactions closed in 2018 under the existing securitisation framework. Albeit some deals might be done in private format rather than public given the recent heavy supply in the public market and the impact on spreads.

Senior prime RMBS – discount margins at pricing
(above 3m Euribor/3m Libor)



of EU banks with an NPL ratio under 3% represented 60.7% in Q2 2018, a significant increase from 34.6% in Q4 2014. The total stock of NPL in the euro Area accounted for EUR 688bn in Q1 2018 according to the Supervising Banking Statistics of ECB (July 2018), already reflecting a decrease of EUR 33bn since December 2017 and a EUR 177bn decrease vs. Q1 2017.

- The downward trend of the NPL ratio has been observed for all EU banks, but a strong dispersion remains across EU countries (ratios between 0.66% for Luxembourg and 44.6% for Greece).
- Coverage ratio sits at 46% as of June 2018 vs. 43.4% in December 2014.



Source: EBA

Activity per country

- Italy has been the most active European country in NPL disposals in the past years and the pace of deal-making is likely to continue. The government has supported this activity by creating a government guaranteed framework to support securitisation of NPLs portfolios on the market. The “Guarantee on Securitisation of Bank Non-Performing Loans” (Garanzia Cartolarizzazione Sofferenze - GACS) is a framework agreed between the Italian government and the European Commission aiming at reducing the NPLs stock from the books of Italian commercial banks. It provides, should all requirements be met, an unconditional, irrevocable and first demand State guarantee for the senior noteholders of securitisation transactions backed by bad loans.

Snapshot on executed GACS transactions:

- 15 GACS NPL ABS since 2016, with rumours of 3 more deals currently in pipeline
- GACs have been executed by 13 originators, from national champion banks to regional players
- Total Gross Book Value (GBV) of all 15 portfolios have reached ~EUR 47.2bn
- The total notes represented on average 28.6% of the GBV
- The senior notes, all rated investment grade as per the GACS requirements, represented on average 24.4% of the GBV
- Societe Generale leveraged on the experience acquired in 2017 (five NPL ABS transactions in the context of two projects) to successfully execute two deals this year (transaction Maior SPV for UBI Banca, and transaction Aragorn NPL for Credito Valtellinese). Societe Generale acted as arranger, joint lead manager and sole swap counterparty in these transactions.

Unlikely to Pay (UTP) exposures are the new challenge for banks within the Non-Performing Exposure (NPE) sector. At the end of 2016, the UTP GBV volume was still lower than Bad Loans in terms of GBV (EUR 117bn vs. EUR 200bn) but overcame Bad Loans in terms of Net Book Value volume (NBV bad loans EUR 64bn) given the lower UTP coverage ratio (UTP coverage of 30% vs. Bad Loan coverage > 60%). Therefore, a proactive management of these exposures would enable Italian banks to effectively deleverage their balance sheets.

- In Portugal, leveraging on a favourable economic environment and the rise in property prices, the Portuguese financial system has significantly reduced its NPL stock since June 2016, when the volume of “bad debt” had reached its peak of about EUR 50.5bn. Since then and until December 2017, NPL in Portugal decreased by EUR 13.5bn down to EUR 37bn (according to the Central Portuguese Bank Banco de Portugal) and by another EUR 2.5bn in Q1 2018, bringing the total amount of NPL reduction from June 2016 to EUR 16bn. The positive market conditions could lead to a further EUR 5.2bn disposal in the next two years.

On the NPL ABS side, Caixa Económica Montepio General placed a portfolio of non-performing loans

of EUR 580.6m on the market. The securitisation transaction, known as Evora Finance, was carried out by Caixa Montepio and was assigned with an investment grade rating. It was the first rated NPL-backed securitisation in Portugal.

- The Spanish NPL market was characterised by the presence of Sareb – Spain's so-called bad bank whose main objective is to clean up the country's financial sector by focusing on the institutions struggling with excessive exposure to the real estate sector. Created in 2012, it obliges credit institutions that benefit from public financial assistance to transfer some of this exposure to Sareb in exchange for senior bonds guaranteed by the state.

Spanish NPL disposal transactions in the primary market amounted to EUR 50bn in 2017 and are expected to reach EUR 70bn in FY 2018. However, the NPL stock will remain attractive in the coming years from investors' perspective. On the ABS side, three securitisations are in the market (SRF 2016-1, SRF 2017-1 and SRF 2017-2) with the particularity of being largely backed by seasoned re-performing loans. The 2016 transaction was the first refinancing of a Spanish legacy mortgage portfolio.

- In the Greek NPL market, more than EUR 20bn of collateral (representing ~EUR 7bn GBV) are expected to be disposed as of FY 2018: five disposals were successfully completed while two transactions are expected by end of the year. EUR 30bn of total claimable value are expected over 2019. The Greek market represents more than 600k debtors under servicing and 14 licensed servicers.

To boost investor confidence and reduce capital raising needs, the Greek government is currently considering the creation of an asset protection scheme as part of the state's non-performing loan reduction strategy. The scheme will involve state guarantees on bonds issued by SPVs, looking at a framework similar to the Italian GACS guarantee.

- The French NPL market is still very quiet, with major players carrying out small disposals on a regular basis. Disposals mainly focus on secured portfolios backed by real estate assets or marginally on SME loans. Although French banks are encouraged by the ECB to have a more dynamic management of their NPL book, the highly concentrated servicing market in France is not yet the ideal scenario to allow the market to develop. There have been no NPL-backed securitisations in the market.

The loan servicing market

- The NPL servicing industry continued to grow throughout 2018 thanks to large stocks of NPLs in Europe as well as regulatory incentives for banks to deleverage their loan books. Moreover, the outsourcing of Banks' recovery activities, the significant increase of portfolio disposals to investors and the requirement of the main Asset Management Companies (AMCs), such as Nama and Sareb, to use servicers has allowed this market to develop further.

Forecasts for 2019

- We expect the disposal of bad loans to continue, with increasingly sophisticated sellers and buyers. UTP loans, single-names, leasing and other industrial niches are expected to become a significant part of the future offer. Securitisation will remain a key instrument as further NPE transactions fuel the NPL secondary market. Banks will strengthen their servicing reach, with increased use of external servicers who will develop their model to deal with more sophisticated clients. Finally, for the NPL market to take off we think the next important step would be the development of an NPL secondary market.

European CMBS

- After almost 1.5 years without new issuance, European CMBS has made a significant comeback since late 2017 with eight public deals issued as at Q3 2018 and two further deals. Deals issued or announced have covered an increasing range of jurisdictions (Germany, the Netherlands, Italy, UK, France and Finland) and asset classes (mainly logistics, retail, offices and hotels).

Collateralised Loan Obligations (CLOs)

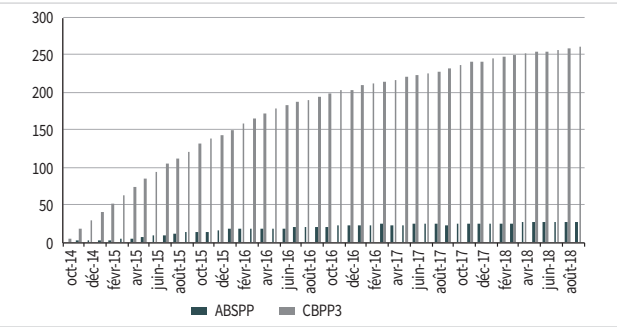
- New issuances in European CLOs in 2018 reached a new post-recession record. At the end of October, year-to-date issuance volumes are already above FY 2017 at EUR 23.8bn from 57 deals (far exceeding the same period last year at EUR 13.7bn with 34 transactions and FY 2017 which stood at EUR 20bn). Europe's issuer base expanded to 45 active issuers, and is set to increase further by year-end. It is noteworthy to add that six debut managers joined the market this year (vs. four in 2016 and 2017 and nine in 2015) with more expected.
- Fast-paced issuance was driven by heavy primary flow from leveraged loans, especially in H1 2018 when managers were able to ramp up faster their warehouses. Although the significant supply started to widen CLO spread levels, arbitrage was preserved until the summer with leveraged loans widening almost on the same basis since the beginning of the year, which allowed managers to keep up with new issuance. Post-summer, we saw a slowdown in the leveraged loan primary market and a thin outlook which stabilised CLO levels and forced some managers to postpone the launch of their CLO to 2019. Overall, CLO levels have widened by 25 bp to 100 bp in a generally orderly fashion, from AAAs down to single Bs since the beginning of year.
- On the refinancing and reset side, while last year saw major activity, 2018 has fewer transactions. This is especially due to eligible transaction restricted to 2016 vintage, while in 2017 the strong tightening allowed managers to refinance/reset transactions issued in 2013, 2014 and 2015. Reset volumes are at EUR 13.7bn from 32 transactions, while CLO refinancing volumes total EUR 3.5bn from nine deals (vs. the same period in 2017 at EUR 23bn total refinancings and resets).

ECB Asset Purchase Programme (APP)

- The Asset Purchase Programme is one of the non-standard monetary measures (like the TLTRO) implemented by the ECB. Part of the APP is the ABS

Purchase Programme (ABSPP), which started in November 2014 to help banks to diversify their funding sources and finance the real economy. Despite being very active in terms of extraordinary monetary policy, the ECB purchases of ABS under the ABSPP remained low, with relatively stable outstanding amounts since 2017. As of the end of September, the cumulative outstanding amount under the ABSPP was EUR 27bn, ten times less compared to the Covered Bond Purchase Programme (CBPP3), with cumulative holdings of EUR 259bn.

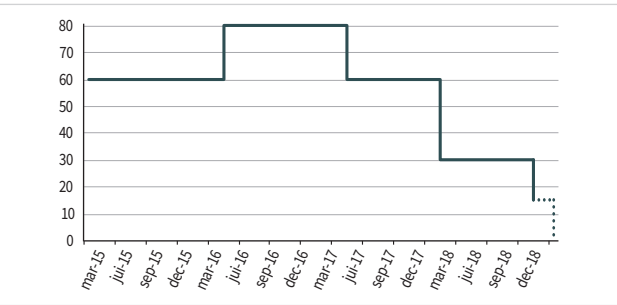
ABSPP versus CBPP3 outstanding volumes (in EUR bn)



Source: Societe Generale, ECB

- From a monetary policy standpoint, the development of the ABSPP cannot be seen as satisfactory, as net purchase amounts and outstanding amounts on the programme are nowhere near other asset purchase programmes. On 14 June, the ECB announced its intention to further reduce the monthly APP purchase limit to EUR 15bn from September, before ending the APP by the end of December. The ECB also intends to maintain its policy of reinvesting the principal payments from maturing securities purchased under its APP. The tapering should have little impact on the ABS market per se. The fundamentals are in place to support the market. However, regulatory constraints may alter this dynamic.

APP Monthly net purchases (in EUR bn)



Source: Societe Generale, ECB

Regulatory Focus

- Following their tri-partite negotiations which started in early 2017, the EU Commission, the Council and the Parliament reached an agreement on the STS Regulation and on the Capital Requirements Regulation (CRR) Amendment Regulation. Thereafter, the EU legislative institutions published two preliminary texts on the amendments to the proposed regulations. These texts set out to (i) lay down common rules on securitisation and create a European framework for "Simple, Transparent and Standardised" (STS)

securitisations, and (ii) change the prudential treatment framework of securitisation transactions. From 1 January 2019, the CRR Amendment Regulation will apply to every new ABS transaction. It will include provisions which result in lower regulatory capital requirements for STS securitisations compared to non-STS securitisations. The regulatory technical standards (RTS) will be published by the EBA to provide clear interpretation and guidelines in relation to the new STS Regulation. RTS will be paramount for the implementation of the STS Regulation from a practical perspective. Following the EBA announcement of an approximately three-month delay, we expect a low volume of new securitisation transactions issued over the first quarter of 2019 (maybe even over part of the second quarter) due to the lack of clarity due to the RTS not being published and the punitive consequences for securitisation incorrectly labelled as STS transactions.

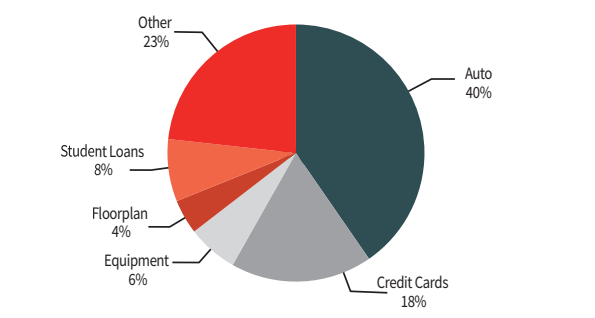
US MARKET

2018 review and 2019 forecast

Volumes on Target

- In spite of focus on the Trump administration, the political narrative posed minimal disruption to US ABS issuance. Primary issuance volumes are on track to end the year at ~USD 225bn, therefore relatively in line with year-end 2017 volumes but higher than year-end 2016. Flow asset classes, namely – Auto, Credit Card, Floorplan, Equipment and Student Loan – continue to constitute the bulk of the ABS market accounting for over 75% of year-to-date new issue volume. The Flow ABS issuance pace is showing limited signs of disruption through at least Q1 2019. The exception however is student-loan ABS which is not expected to maintain its current stride, as refi loans are largely replacing the traditional student-loan issuance model.

YTD 2018 new issue ABS by asset class



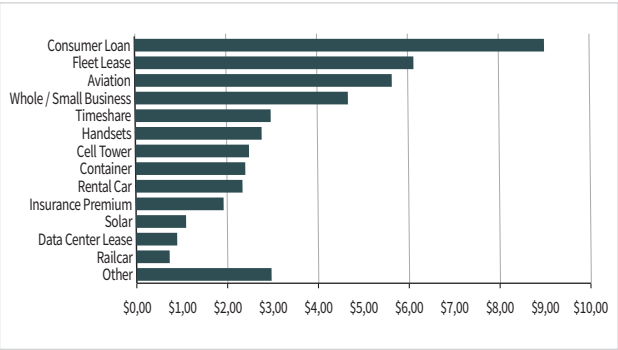
Source: Societe Generale, Bloomberg. YTD 2018 through 19 October 2018.

New Issue ABS by Asset Class (USD bn)				
Asset class	YTD 18	YTD 17	FY 17	FY 16
Auto	\$80,142	\$69,858	\$83,078	\$78,741
Credit cards	\$35,398	\$41,949	\$47,310	\$33,606
Equipment	\$12,615	\$9,418	\$11,708	\$9,754
Floorplan	\$8,634	\$10,293	\$11,843	\$8,755
Student loans	\$15,558	\$11,954	\$14,936	\$14,569
Other	\$46,176	\$41,810	\$52,597	\$39,744
Total	\$198,523	\$185,282	\$221,471	\$185,169

Source: Societe Generale, Bloomberg. YTD 2018 through 19 October 2018.

- Meanwhile, Esoteric ABS growth momentum has been virtually uninterrupted, driven by a surge in novel asset classes, such as Unsecured Consumer Loan, Peer-to-Peer, Handsets, Cell Tower, Solar and Data Center ABS in addition to the resurgence in Aviation, Rail, Container and Whole Business. Investors hungry for yield have supported the pace of Esoteric new issue volume.

YTD 2018 esoteric ABS issuance (USD bn)



Consumer loan also includes peer-to-peer consumer loan. Whole / small business also includes peer-to-peer business. Other includes: PACE, Rate Reduction, Precious Metals, Structured Settlements, Tax Lien and Trade Receivables. YTD 2018 through 19 October 2018.

- Investors have likewise embraced the changing issuer landscape as 2018 marked the introduction of 20 inaugural ABS programs, growing popularity for cross-border transactions and the highly anticipated comeback of Volkswagen AG into the US ABS market. In 2018, we also saw a notable shift in the top issuer composition, reflecting not just new entrants into the sector but also changing liquidity needs amongst existing names.

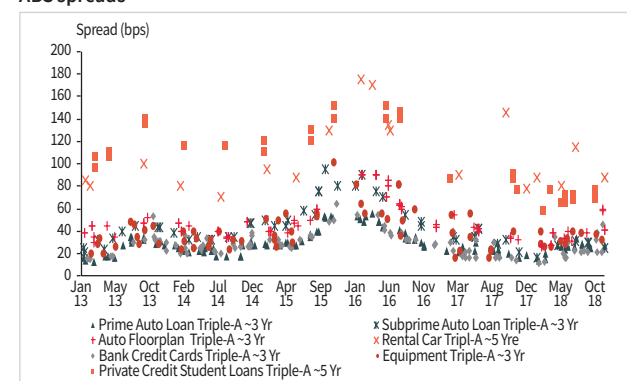
Top 25 US ABS Issuers				
2018 YTD Rank	2017 Rank	Issuer	Asset class	YTD 2018 volume (USD bn)
1	1	GM Financial	Auto	\$12,596
2	5	Santander	Auto	\$11,028
3	2	Ford	Auto	\$9,280
4	7	Ally	Auto	\$6,689
5	4	American Express	Credit Card	\$6,595
6	3	Citi	Credit Card	\$6,275
7	8	Navient	Student Loan	\$5,650
8	12	CarMax	Auto	\$5,604
9	21	World Omni	Auto	\$5,448
10	9	SOFI	Student / Consumer Loan	\$4,861
11	20	Daimler	Auto	\$4,459
12	18	Bank of America	Credit Card	\$4,025
13	11	Discover	Credit Card	\$3,800
14	14	Toyota	Auto	\$3,643
15	15	Honda	Auto	\$3,294
16	24	BMW	Auto	\$3,150
17	35	Westlake	Auto	\$3,100
18	16	Verizon	Handsets	\$2,783
19	37	Nelnet	Student Loan	\$2,481
20	13	Hyundai	Auto	\$2,439
21	6	Nissan	Auto	\$2,426
22	29	Synchrony	Credit Card	\$2,325
23	34	Bank of Montreal	Credit Card / Auto	\$2,278
24	19	Enterprise	Fleet Lease	\$2,001
25	17	Chesapeake	Fleet Lease	\$2,000

Source: Societe Generale, Bloomberg. YTD 2018 through 19 October 2018.

Spreads and Rates

- Since 2017 demand in both the primary and secondary market squeezed spreads even tighter across the credit-risk spectrum. The relative tightening in ABS spreads has been more pronounced across the non-flow asset classes. While investor preference for the highest quality and most liquid products results in a natural “tiering” across issuers and asset classes, we observed nonetheless that the average spread differential between the various tiers has decreased. The spread basis between IG and non-IG ABS bonds has likewise compressed; investors have even shown growing appetite for deeply subordinated double and single-B risk. However, beginning February of this year ABS spreads began to widen particularly for low yielding triple-A benchmark asset classes.

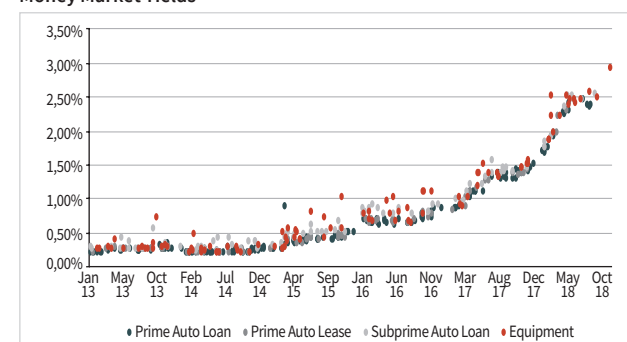
ABS spreads



Source: SG; Bloomberg

- We see enduring challenges for the short-term money market class since the 2a-7 Money Market reform came into effect in October 2016. The combination of rising rates and investors demand has pressured yields even wider.

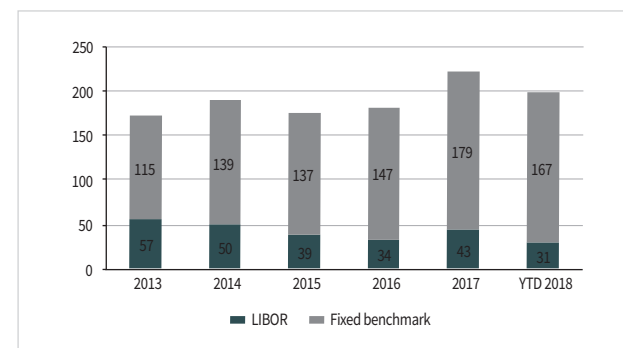
Money Market Yields



Source: SG; Bloomberg

- The prospects of rising rates have not provided much boost to floating-rate demand. Issuance remains overwhelmingly fixed-rate. LIBOR continues to underpin new floating-rate ABS issuance and the transition to the Secured Overnight Financing Rate (SOFR) or an alternative benchmark for the sector is still unclear. This year, all floating rate issuances were accompanied by disclosures regarding the uncertain future of LIBOR and its potential adverse impact on the floating rate bond.

Historical ABS issuance by coupon type (USD bn)



YTD 2018 through 19 October 2018

Source: SG; Bloomberg

The Hanging Threat of Tariffs

- The Commerce Department has opened an investigation earlier in May to determine whether imports of automobiles and parts pose a threat to US national security; any negative findings could lead to a 25% tariff being levied on imported vehicles. Several rating agencies have stipulated that tariffs on imported vehicles and parts would be a “credit negative” for the US auto industry at large, adversely impacting consumers, manufacturers, dealers and parts suppliers, potentially hamper the rate of growth of the auto finance market in the immediate term. Auto-related ABS, which constitutes almost 45% of the ABS market, is highly correlated to new vehicles sales and generally the health of wholesale vehicle market. During the annual ABS East conference held in Miami this September, industry participants showed mixed emotions over the proposed Trump auto tariff. Nonetheless, many argued that it was too early to tell if any credible actions would materialise but most issuers deem that the auto sector fundamentals remain strong and foresee limited impact on ABS for at least the remainder of the year. While we expect US light-vehicle sales to fall relative to levels seen a year ago, at this stage of the credit cycle, demand for auto credit is expected to remain healthy as we head into 2019, assuming away trade policy threats.
- Equipment ABS has not been spared from the trade policy discussions. Approximately 7% of total ABS issuances relates to Equipment, of which 35% displays agricultural equipment collateral. On July of this year the Trump administration imposed a tariff of USD 50 billion on Chinese goods, which lead to a reciprocal response from China imposing a comparable tariff on US goods, including a 25% tariff on soybeans. Given that China was one of the largest importers of US soybeans, several market participants postulate that the tariff is likely to pressure soybean prices, dinging farmers’ income in regions highly reliant on soybean production, which in turn could hinder farmers’ ability to honour payments on their equipment loans and leases. Nonetheless, the consensus is that agriculture equipment ABS shelves have sufficient borrower and equipment diversity as well as structural mitigants to weather the negative impact of the soybean tariff on the US agricultural market.

Structures Resilient Amid Softer Asset Performance

- Despite softer consumer ABS performance persisting in 2018, investor sentiment is seemingly unwavering, as the majority are accepting of the current credit environment, while factoring in the impact of consumer behaviour in the context of rising interest rates and even considering near term recessionary risks. In 2018, we saw sustained positive rating performance as capital structures continue to prove their resilience to adverse asset performance. The commitment from consumer ABS issuers to tighten collateral quality going forward and the favourable macroeconomic backdrop is likely to keep both consumer and commercial ABS performance in check in 2019. ABS should continue to provide valuable liquidity amidst any cyclical given its reputation for being a resilient product through an economic cycle.

EU Risk Retention

- Effective as of 1 January 2019, US ABS will be indirectly impacted by the new EU regulatory framework governing securitised products. The greatest threat surrounds US ABS held by Undertakings for Collective Investments in Transferable Securities (UCITS), which up until now were not required to hold ABS compliant with EU risk retention rules and the various data disclosure requirements. Several ABS sponsors interested in maintaining their EU investor base are giving serious consideration to EU risk retention. This year, there have been several auto ABS issuances compliant with EU risk retention rules and just a handful in the esoteric space. Disclosure requirements appear to a bigger hurdle, particularly for 144a shelves.
- US CMBS: The non-agency CMBS market has seen a slight downtick in issuance from last year. Approximately USD 69.4bn has priced to date for private-label CMBS, of which USD 30.6bn was in the form of conduit transactions. As a comparison, 2017 year-to-date private-label volume was around USD 69.6bn. While overall volume is relatively flat, there has been a shift in issuance from conduit to single-asset/single-borrower (SASB); full-year 2017 volume was weighted roughly 60%/40% conduit/SASB, and 2018 volume is tracing roughly 50%/50%. Given the rising interest rate environment, investor demand for both conduit and SASB transactions remain healthy. Issuance is expected to remain steady through to year-end, as bank originators are incentivised to maintain velocity and price transactions shortly after origination, instead of holding the risk on the balance sheet for extended periods of time. The headwinds that we expect to continue for some time include Federal Reserve interest rate fluctuations, online retail pressuring traditional brick and mortar stores, and geopolitical risks given the current administration.

- As a function of rising rates and increased volatility relative to last year, we have seen AAA conduit spreads drift wider throughout 2018. The AAA-rated, 30% subordinated, 10 year “Duper” class is currently pricing in the +85-87-bp area while it was pricing at levels closer to +66-70 bps area at the start of this year. Meanwhile the BBB/BBB- classes have benefitted from credit investors’ quest for yield and have been pricing within the +230-350 bp range throughout the course of the year, versus +300-450 bp last year.
- US CLO: The CLO market has seen healthy issuance throughout the year. With 2018 year-to-date primary issuance volume at USD 106.6bn, the market is on track to exceed total 2017 issuance of USD 119.85bn. Much of the supply for this year was inked during 2018’s earlier months. CLO warehouses are building slowly, as a major theme has been the difficulty in sourcing collateral to fit deals. The primary leveraged loan calendar has been lighter over recent months and terms have been leaning less favourable to lenders. Meanwhile, loans in the secondary market are trading above par. As a result, new issue CLO volume may slow going into year-end.
- Another trend affecting the CLO market is spread widening. We believe cyclical tightens in spreads have passed, especially with pressure on spreads driven by a heavier volume of refinancing and reset transactions. 217 refinancing and reset transactions have priced year-to-date for USD 105.0bn of volume. Although this is not expected to match 2017 full-year refinancing and reset volume of USD 165.66bn, the market has still printed far more paper than in 2016, where full-year reset/refi volume was only USD 39.09bn. This dramatic increase in volume of refinancing and reset transactions over the last two years is a direct result of the modification of deal documentation that now allow managers and equity holders more flexibility to optimise the cost of the capital structure for these transactions. As refinancing and reset spreads widen given heavy supply, new issue CLO spreads will most likely widen to continue attracting investors.

SYNDICATED LOAN MARKET

2018 review

EMEA

- Syndicated loans in EMEA in the first nine months of 2018 totalled USD 894bn (source: Dealogic) versus USD 740bn for the same period in 2017. This increase reflects a brisk level of activity across asset classes, both for investment grade and non-investment grade transactions, and a healthy level of liquidity from lenders, whether banks or institutional investors.

Western Europe

- Throughout the first three quarters of 2018, Western Europe market grew slightly and registered total volumes of ~EUR 401bn (+7% year-on-year) for 571 transactions (-3% year-on-year). Liquidity remained strong which translated in competitive pricing obtained by borrowers even if improvement has become limited, particularly in the strong IG categories. At the end of Q3 2018, volumes were split between 65% of GCP, i.e. ~EUR 261bn and 35% of acquisition financings, i.e. ~EUR 141bn. Moreover, the relationship angle together with the current/potential side business offered by borrowers remain key drivers of liquidity for corporate transactions.

CEEMEA

- CEEMEA 2018 volumes were up in the first nine months of the year versus 2017 with a lower number of deals closed so far but with larger sizes. Indeed, volumes reached USD 154bn versus USD 120bn in 2017 over the same period. The volumes in CEEMEA were driven by the Middle East (Saudi Arabia in particular) across sovereigns, FIs and corporates. This was fuelled by strong appetite from banks to provide liquidity for key relationships, in particular where potential side business is available. In contrast, Russia and Turkey slowed down significantly due to sanctions and political turmoil respectively. Central and Eastern Europe was dominated by acquisition deals with strong support shown by under-lent banks with presence in Czech

Republic and the wider CEE region. African market volumes are increasing slowly with more activity expected into next year; the increase of oil prices should help fuel appetite for African borrowing and lending.

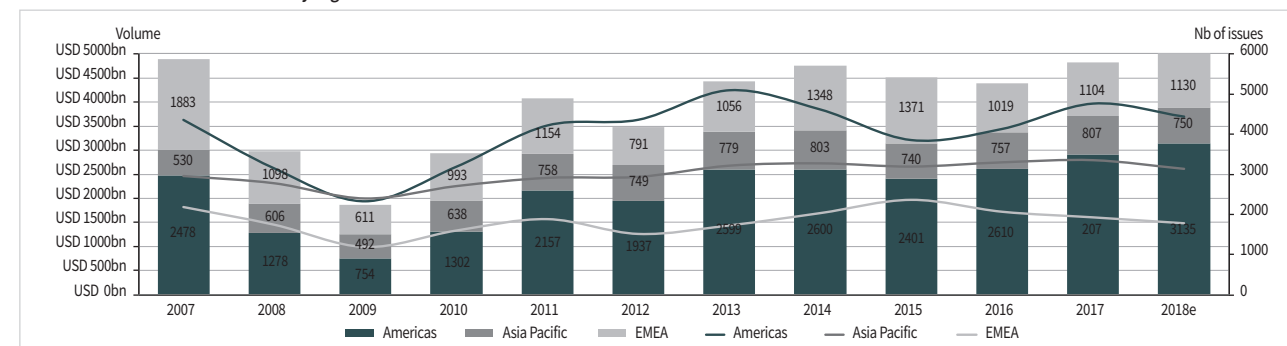
Americas

- US syndicated lending reached USD 1.9tr through the first nine months of the year, 3% above this time last year driven, in part, by record M&A loan volume which totalled USD 457bn for the first nine months of 2018 and was up 11% over the same period last year (source: Loan Pricing Corporation).
- For the third quarter of the year, US syndicated loan volume totalled a mere USD 432.1bn, which was the lowest quarter since Q1 2016 and represented a 47% decline from Q2 2018.
- Investor demand for both high grade and below investment grade loans is high with investors complaining about a lack of new money transactions, which is down 3% to USD 594bn for year-to-date Q3 2018 compared to the same period last year.

APAC

- The Asia Pacific syndicated loan market volume for 2018 is expected to reach ~USD 750bn, which would be a decrease of ~7% versus 2017's USD 807bn. The volume reduction is mainly driven by the decline in loan volumes in China and Hong Kong as domestic funding demand in onshore China remained stagnant. The clamp down of outbound acquisitions and regulatory control on offshore borrowings by mainland Chinese corporates by the Chinese government has led to fewer financings raised in Hong Kong, which has been the offshore financing centre for Chinese companies in the past few years. The volume originated in China is expected to decrease by ~15% to USD 102bn while Hong Kong loan volume is expected to decrease by 22% to USD 115bn.

International loan market volumes by region



Source: Dealogic

Regional focus

Western Europe

Corporate

- At the end of December 2017, volumes reached ~EUR 488bn, up by 2% year-on-year, despite a lower number of transactions (-12% year-on-year), reflecting the impact of large transactions in late 2017 including both GCP and acquisition financings. As of end of September 2018, volumes grew by +7% year-on-year while the deal count remained quasi-stable (-3% year-on-year). This increase in volumes is however inflated by the Hochtief acquisition structure of Abertis which accounted for a total of ~EUR 50bn (transitional and back-up facilities accounting for 35% of Year-to-date acquisition volumes) compared to an acquisition valued at ~EUR 18bn.
- Nevertheless, this trend is not posted by all countries. If some countries already achieved or are on track to achieve their last year total volumes (Germany, France, Spain and UK with respectively 137%, 99%, 93% and 80% of their 2017 figures), some others are lagging behind, such as Italy and Switzerland that respectively reached 57% and 51% of their 2017 total volumes. Switzerland should record a sustained last quarter but Italy 2017 volumes were exceptionally ahead of previous years due to the Atlantia transaction and the EUR 10bn Enel RCF.
- The dynamics of GCP financings have been positive with volumes up to ~EUR 261bn for 496 transactions versus ~EUR 248bn for 518 deals Year-to-date 2017. The biggest contributors have been borrowers based in Germany with ~EUR 44bn and UK with ~EUR 46bn, accounting for 35% of year-to-date GCP volumes.
- In terms of M&A, we can quote the following major transactions: GlaxoSmithKline secured a USD 13bn bridge to finance the acquisition of Novartis' share in their common JV, Unibail-Rodamco signed a EUR 6.1bn bridge facility to back its USD 24.7bn acquisition of the Australian retail group Westfield Corp, and AXA raised a USD 11bn bridge to support its USD 15.3bn acquisition of NY-listed insurer XL Group. Overall, acquisition volumes have been sustainable with EUR 141bn for 75 deals (or 97% of the 2017 acquisition totals), particularly boosted by the Hochtief debt package, however acquisitions announcements have slowed down in the third quarter.
- Notwithstanding the continued pressure on pricing conditions, liquidity remains strong. While the improvement has become limited, pricing has continued to tighten in 2018, especially for non-IG borrowers given that margins for the best rated companies were already at low levels. The objective is to take advantage of the current market conditions to secure a favourable margin for the coming five-to-seven years, potentially enhanced by a green feature. In 2018, Iberdrola, Danone, AccorHotels or Adecco added a green component to their documentation, as an additional driver to the margin depending on environmental, social and governance criteria.

Leverage

- Year-to-date, Q3 2018 total European leveraged loan volume reached EUR 82.8bn - a moderate ~3% decrease year-on-year. M&A related transactions have represented the vast majority of the activity this year accounting for more than 73% of total volume versus only 41% in 2017. The first half of the year was very active with EUR 62.5bn of issuance, the highest semester in terms of volume since the financial crisis. After the usual summer break, the market reopened strongly with high-profile jumbo buyouts launching the same week from Refinitiv (with USD 14.3bn eq. of debt of which USD 9.25bn eq. of term loans, the transaction is the second largest post crisis LBO worldwide) and Akzo Nobel Specialty Chemicals (the transaction is the largest LBO in Europe post crisis with EUR 7.3bn eq. of debt of which EUR 5.5bn eq. of term loans). Despite very robust investor appetite and high levels of commitment leading to strong success for these two notable deals, scarcity in primary supply in late Q3 didn't permit year-to-date Q3 2018 volume to exceed 2017 issuance over the same period.
- Overall borrower-friendly market conditions have translated into increased leverage levels, looser documentation and higher pressure on pricing. As of Q3 2018, first-lien leverage levels continued to climb with an average of 4.8x (vs. 4.6x in FY 2017), which is the highest level ever reported by S&P LCD. Average total leverage levels reflect a similar trend reaching 5.4x (vs. 5.1x in FY 2017), although they have not returned to historic highs yet (5.5x in 2007).
- Cov-lite transactions have remained the norm in Europe this year and reached 89% of year-to-date Q3 2018 institutional volume versus 78% in the same period last year and 60% during full year 2016. The cov-lite structure is now available to most companies with EBITDA above EUR 50m and this threshold keeps being pushed downward.
- So far this year, the market has seen an increasing number of second-lien tranches. With EV multiples that keep increasing, sponsors are more inclined to include a junior debt component in the capital structure. While most sponsors continue to pre-place European second-liens to avoid market risk and obtain better terms and conditions, we see an increasing number of these tranches being syndicated.
- The first half of 2018 saw stable average spread for euro-denominated B/B2 LBO financings at roughly 385bp over Q1, slightly increasing to 386bp during Q2. The dynamic changed during the third quarter with pricing increasing to 415 bp on average. EUR pricing for typically B/B2 rated LBO transactions currently stands in the 375-400bp (0% floor) context. On the GBP side, current pricing stands in the 475-500bp (0% floor) context.
- Year-to-date Q3 2018 cross-border issuance reached EUR 81.2bn eq., up 8% from the same period in 2017 (EUR 75.2bn eq.). The portion of these transactions

syndicated in Europe has significantly increased with EUR 34.6bn eq. issued as of year-to-date Q3 2018 versus EUR 25.8bn eq. during the same period last year. This translates into 43% of the total cross-border issuance, compared to 34% in the same period during the previous year.

- New European CLO creation remained very active with year-to-date Q3 2018 issuance of EUR 20.8bn from 50 vehicles, a record issuance level in the CLO 2.0 era, surpassing even 2017's full-year level of EUR 20.9bn from 51 deals. The forward-looking pipeline is not showing any sign of slowdown with a new wave of CLO issuance expected to come in Q4 2018. It is worth mentioning that 37 managers have issued CLOs so far, this year (vs. 29 for the full year 2017) reflecting new entrants bringing more diversity to European liquidity.
- On the arranging side, appetite remains strong as both asset-taking banks and underwriters are willing to participate and arrange more and more leveraged transactions. In 2018, competition from direct lenders has not diminished either as they are able to dedicate more and more capital to each deal, they keep diversifying their target geographies and have consistently increased their lending activity across European countries in recent years.

Project & asset-backed finance

- Oil & Gas: Overall year-to-date EMEA Oil and Gas issuance totalled over USD 21bn, which falls behind the volumes of the first ten months last year (USD 30bn). Activity was driven by upstream transactions – reserve-based lending (RBL) issuance, which totalled over USD 13.5bn and is roughly on pace to meet last year's issuance of ~USD 20bn. The majority of deals in the upstream sector were in the North Sea / Norwegian Continental Shelf (NCS) but we have seen an increase in issuance out of Africa and the Middle East, as well as an increase in transactions being used for development purposes. Most notable upstream transactions this year include the USD 2bn Neptune Oil and Gas acquisition financing, the USD 1.5bn Kosmos refinancing, the USD 1.3bn Energean development financing, as well as the USD 5bn refinancing for Lundin, which is the largest RBL in the market. Overall, there continues to be ample liquidity in the EMEA RBL market which has led to pricing tightening across all jurisdictions and structures loosening, especially for large producing asset portfolio transactions in the North Sea / NCS. In the mid-downstream sectors, major transactions included the USD 5bn Duqm Refinery transaction in Oman. Other medium-sized transactions were GBP 768m acquisition of North Sea Midstream Partners in the UK (pipeline network) and USD 942m Al-Zour LNG Importing and Regasification transaction in Kuwait.
- Renewables: Activity has been strong in 2018 with a number of onshore (both solar and wind) and offshore deals spread across the UK and Western Continental Europe. Volumes are up by 7.8% in EMEA from last year at the same period – last year's total issuance totalled ~EUR 28bn. The sector remains strategic for lenders, and as a result, a plethora of liquidity has driven

pricing down to an all-time low and structures have become more aggressive, especially with a few deals presenting some merchant risk. Major transactions included the offshore wind Merkur refinancing in Germany (EUR 1,439m), the greenfield project Hornsea in the UK (GBP 3,298m) and the Tages III refinancing in Italy (EUR 452.5m). Societe Generale is involved in a leading role in all three deals. For onshore wind and solar, most of the deals are smaller: for instance, brownfield deals Amon and Tenergie in France (respectively EUR 127m and EUR 266m). There has been rising interest from Asian investors and more specifically second-tier Japanese banks in this sector, especially when Japanese sponsors are shareholders or contractors in the projects.

- Infrastructure: Following last year's trend, one of the most significant developments for greenfield projects has been capex relating to Fibre Optic roll-out in order to meet governmental fibre optic roll-out targets. In August 2018, the largest deal of its kind closed: Open Fiber (sponsored by JV of CDP-owned CDP Equity and Italian utility Enel) is the EUR 3,470m financing of the roll-out of a FTTH fibre optic broadband network project throughout Italy. A number of other transactions closed or are in bidding stage especially in France and the UK. In this sector, liquidity is less deep, as the market is still in its infancy but we expect this to develop significantly over the coming years. More traditional infrastructure finance (schools, highways, hospitals, etc.) continues to be active. In France, there is the refinancing relating to the LISEA high speed rail project refinancing (Tours – Bordeaux) sponsored by Vinci, CDC and Meridiam, for EUR 2,100m and the EUR 825m A65 motorway refinancing (sponsored by Eiffage and Sanef). Other deals in the road financing space have been the GBP 924m refinancing of the M25 toll road in the UK (Balfour Beatty, Dalmore Capital, Equitix and Egis), the EUR 930m A16 Rotterdam Highway in the Netherlands (De Groene Boog consortium), the MiTo (Ardian Infrastructure) EUR 850m acquisition financing in Italy (portfolio of motorway concessions) as well as the Bina Istra (Bouygues) expansion deal in Croatia. Non-bank investors continue to show strong interest in infrastructure finance and have become more flexible with their investment criteria. We expect this trend to continue.
- Real Estate: Liquidity for commercial real estate debt continued to be strong across Europe in H1 2018 with total deal volume in 2018 year-to-date in EMEA amounting to USD 67.9bn, up by 56% from USD 43.5bn the year before. This applies across all asset classes from logistics to hotels to offices where we are experiencing falling average margins and increasing loan-to-value (LTV), mainly in Western Europe. Pricing in Paris and Germany continues to be aggressive falling below 90 bp for prime office transactions. We note investors' increased appetite for more complex transactions and jurisdictions outside of Germany and Paris in order to capture slightly higher returns. There is an increasing number of larger deals with aggressive structures and portfolios spanning multiple countries as compared to last year. For the

strongest of transactions, cov-loose/lite structures are becoming a feature but the majority of deals still benefit from a full covenant package. We are seeing an increasing pipeline in the UK and we expect strong competition as lenders search for relative yield across Europe. With a handful of exceptions, whilst remaining cautious, investors appear reasonably undeterred by Brexit driving pricing for prime office assets as low as 110-120 bp.

- Aircraft: The industry continues to perform very well and is borrower friendly as it attracts significant liquidity from a wider number of banks able to commit on a diverse range of deals. Structures remain standard for airline secured financing: usually 12Y, full payout with full recourse, with pricing continuing to compress, probably driven by the lower cost of funding and excess liquidity (below 150 bp in many cases). Beyond the bank's appetite, this trend in airline financing is also encouraged by the competitiveness of other sources of financings (lessors as well as, mostly for US airlines, EETCs). While there has been a couple of ECA financings, AFIC has also proven to be a way to enhance bankability for lower credits. Although the lessor market is more protected from price competitiveness due to its syndicated nature, pricing has progressively tightened: recourse portfolio deals price generally closer to 150 bp and up to 200 bp for non-recourse structures for ~5-7Y tenors.

CEEMEA

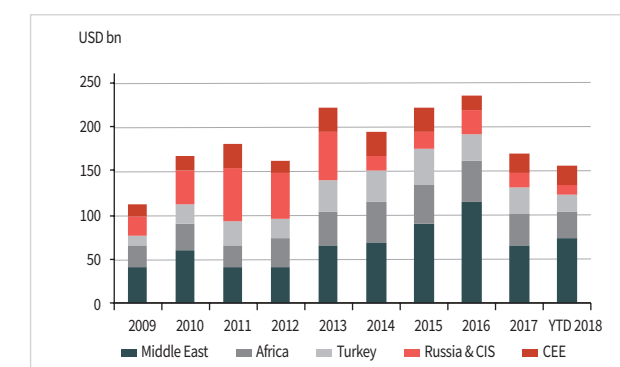
CEEMEA 2018 volumes for the first three quarters have increased versus the same period last year which will reflect the full year trend.

- Middle East: The Gulf Cooperation Council (GCC) delivered a strong performance, up 11% in October 2018 as compared with FY 2017. This was driven by two jumbo deals in Saudi Arabia for the Ministry of Finance and the Public Investment Fund (PIF) which both came to market in 2018. Furthermore, a rise in oil prices and an improved macro-economic environment has increased available liquidity, in particular from regional banks. The excess liquidity is shown not only in Saudi Arabia, but also throughout the Gulf, with large corporate and Financial Institution Group (FIG) transactions observed in the UAE, Kuwait and the market re opening for Qatar. Despite the increase in volumes, the number of deals has decreased due to a number of refinancings already occurring in the past two years and in many cases, less of a requirement to raise a loan due to increase in oil prices.
- Africa: Overall, activity has increased by ~29% during the first three quarters, with volumes already at 2017 levels. We saw interesting opportunities for sovereigns, where loans have priced wider than bonds creating a good lending dynamic for banks. A good example was MOF Kenya achieving a 7Y USD 750m deal in April.
- Central and Eastern Europe: After a slow year in 2017 with just USD 21bn syndicated loans issued, the expected M&A activity arrived in 2018, with some very visible transactions closing in CEE including PPF Arena

1 acquisition of Telenor CEE. As a result, volumes in 2018 have exceeded 2017. Overall, conditions continue to tighten and liquidity remains strong in both low IG and Non-IG space, with several ongoing bid processes in the TMT and O&G sectors still in the pipeline.

- Russia and CIS: The latest US sanctions on Russia have severely impacted deal flow but liquidity still exists leading to continued tighter spreads, which has been reflected by various corporates requesting reduced pricing. The pre-export finance structure has remained standard for many large commodity players with the strongest credits moving to unsecured borrowing (e.g. NordGold). Generally, volumes for the FY 2018 should be either flat or slightly below 2017, at ~USD 15bn. We have seen a couple of deals in Kazakhstan and we expect further activity in the CIS over the coming year, in particular if Russian deal flow remains depressed (which is our expectation for 2019).
- Turkey: Similar to last year, the syndicated market is still very depressed with almost all the activity solely for Turkish FIs, which continue to close short to medium term loan facilities. Volumes are down 16% since the beginning of the year with very limited corporate activity due to political instability affecting the lending appetite. Downgrading of one notch by Moody's and S&P to Ba3/B+ has also been a factor.

Volumes breakdown by region



Source: Dealogic

Americas

Corporate

- At USD 884.2bn, US investment grade lending is up 20% compared to this time last year. Growth was driven by a surge in refinancing activity in Q2 resulting in a 26% increase in refinancings for the first nine months of the year.
- M&A loan volume, while up 16% for the first nine months of the 2018 compared to the same period last year, has declined quarter over quarter in 2018 with third quarter M&A loan volume down 37% from the prior quarter and 44% year over year. Nevertheless, investment grade term loan issuance hit a record USD 388.75bn in the third quarter with 74% of this volume supporting M&A transactions. Term loans are increasingly being utilised as a substitute for traditional bridge-to bond take-outs in jumbo acquisition transactions as a way for issuers to optimize the timing of bond take-outs and take advantage of strong appetite, especially from US banks, for drawn assets.

- While subsequently cancelled, the USD 100bn syndicated loan package backing Broadcom's acquisition of Qualcomm in March 2018 was the largest on record and is a testament to the massive amount of liquidity available from banks.
- With strong liquidity from banks, pricing remained relatively flat over the course of the year and 5Y tenors continued to be the norm for the majority of corporate revolving credit facilities.

Leverage

- While periods of volatility in the broader capital markets had some very short-term pricing impact, the US leveraged loan markets were largely driven by technical factors much of the year with the early part of the year characterised by too little supply to meet investor demand, followed by a spike in new money supply in the early part of the summer that brought the market into better balance. In early September, technical conditions once again shifted in favour of issuers following paltry new money issuance in August. Given this, some of the largest transactions of the year were easily absorbed into the market in September including Refinitiv (USD 6.3bn), Akzo Nobel (USD 4.3bn) and Envision Healthcare (USD 7.25bn), all of which saw their term loans upsized and pricing cut after being significantly oversubscribed.
- Leveraged loan volume at USD 498.5bn was down 4% for the first nine months of 2018 despite a 14% increase in M&A volume as refinancing/repricing activity dropped 15% from the prior. LBO activity was up 15% year-over-year to USD 286bn and was the third highest total on record (source: S&P Leveraged Commentary & Data).
- Market sentiment remains strong with no near-term concerns of the economy slowing. Default rates continue to be modest, with the default rate falling to a 10-month low in September and well inside the 3% historical average and marks the first three-month default-free streak in the S&P/LSTA Leveraged Loan Index since August 2014. With the S&P/LSTA Leveraged Loan Index returning 4.2% so far this year, three-month LIBOR up roughly 75 bp since the beginning of the year and expectations that LIBOR will continue its upward trend, investors have been attracted to this floating rate asset class. As a result, inflows into the market remain solid. CLO new issuance volume totalled USD 101bn year-to-date Q3 2018 and should it continue at this rate for the fourth quarter, will break the record-breaking USD 124bn full-year CLO issuance set in 2014. Net inflows into loan funds, while relatively modest at USD 11bn for the first nine months of the year, have been positive in each month of 2018 and positive in all but 5 weeks so far this year and are already ahead of the USD 9.7bn that flowed into these funds for all of 2017.
- On the back of strong market demand, leverage multiples and other structural terms have become increasingly more aggressive. For loans structured for sale to institutional investors versus banks (92% of this year's leveraged volume), 72% of issuers were rated B+ or below, which is a record. Further, 75% of all leverage

buyouts were levered at 6x Debt-to-EBITDA or greater and 45% were leveraged at more than 7.0x, the highest since 2007.

- In a continuation of a trend beginning in mid-2016, Direct Lenders, typically US asset managers that manage multiple investment vehicles such as CLOs and Separately Managed Accounts on behalf of third-party institutional investors, have been a growing source of funding for middle market transactions and a selective participant in larger transactions. Their ability to commit and hold the entire amount of middle market transactions have enabled them to disintermediate traditional underwriters as issuers and financial sponsors have been attracted to the relative ease of execution vis-à-vis a syndicated loan product. In addition, pricing is known at the time of commitment versus a syndicated product which exposes issuers to potentially higher all-in pricing based on market-clearing levels.

Project finance and emerging markets

- North American project finance year-to-date loan volumes totalled USD 37.6bn through Q3 2018, up almost 10% from the same period in 2017 primarily due to a spike in volume in Q2 2018 to USD 19.7bn, which was the highest quarterly total in the past three years. Deal count remained relatively flat at 77 for the first nine months of 2018 versus 75 for the same period last year and included seven deals greater than USD 1bn (source: Project Finance International).
- Traditional project finance bank lenders continue to look for assets with robust demand driving pricing downward. Interest rate margins on bank loans for contracted assets have tightened to as low as L + 137.5 bp for a portfolio of assets and L + 150 bp for single assets with step-ups every three to four years. Renewable construction bridge financings (tenors less than 18 months) have seen bank interest at levels as tight as L + 100 bp.
- 7 to 10-year mini-perms continue to see the most demand from banks. Longer dated deals are less common, but continue to be selectively executed driven by strong market demand.
- In a market with robust bank demand, issuers continue to seek to push the envelope on structure and terms, and the market has been willing to accept this, assuming strong sponsorship and the underlying fundamentals of the deal make sense.
- In M&A, developers are increasingly looking to sell down to passive institutional investors, such as pension funds and sovereign wealth funds, and this is bringing more permanent, less expensive capital into the market. This allows the more expensive capital to be allocated to the development of new projects.
- Asset managers and infrastructure debt funds continue to look for opportunities in the floating rate senior secured project finance market, albeit often at higher prices than banks require. As such, these institutions often look to provide holding company or mezzanine loan tranches to achieve their yield requirements.

- An institutional investor universe exists (Term Loan B market) that is willing to provide capital for transactions with higher-risk credit profiles that is outside of the comfort zone of most banks.
- Latin America syndicated loan volume for the first nine months of 2018 totalled USD 33.4bn, which was higher than the annual volume in each year since 2012 and was up 72% from the same period in 2017 (source: Loan Pricing Corporation). Despite the increase in volumes, the number of deals remained flat at 56 year-over-year.
- Brazil led Latin America for syndicated loan volume with USD 15.8bn for year-to-date Q3 2018 and was up from just USD 3.1bn from the same period last year. Despite the huge increase, only seven deals were done as two jumbo deals drove the increase including the USD 9.2bn financing backing the merger between Suzano and Fibria and a USD 4.4bn deal for Petrobras.
- Mexico came in a close second with syndicated loan issuance of USD 14.5bn for the first nine months of 2018, up 54% from the same period the prior year, and was much more active than Brazil as volume was spread across 35 deals. This increase was despite lenders' caution around mid-year 2018 elections and a new administration, which will not come into power until December.

APAC

Corporate

- The 2018 Asia Pacific Corporate and Acquisitions loan volume is expected to record ~USD 579bn, a ~3% reduction from last year's level.
- Corporate and Acquisition loans remain the key contributor to loan volume in APAC, representing 77% of the total loan volume in the region. Japan continues to top the league tables in Asia Pacific, in terms of volume share, followed by Hong Kong, Australia, China and Singapore.
 - Asia Pacific M&A volume is expected to reach ~USD 72bn in 2018, well above last year's USD 57.2bn, due primarily to the USD 30,850m jumbo bridge facilities supporting Japanese pharmaceutical company Takeda Pharmaceutical Company Limited's acquisition of London-listed global biotechnology group Shire Plc. The acquisition is awaiting relevant regulatory and shareholder approvals
 - Another sizeable corporate deal in 2018 was the EUR 3,068m (USD3,637m) financing to support the acquisition of an 8.2% stake in Swedish truckmaker AB Volvo by Chinese automotive manufacturer Zhejiang Geely Holding Group.

Leverage

- In 2018, the Asia Pacific leveraged finance market is expected to record a total volume of ~USD 16bn, representing a ~16% decrease.
- As of end Q3 2018, the Asia Pacific leveraged finance market recorded a total of USD 12bn in volume via 18 deals.

- Japan topped the leveraged finance market with ~USD 7.6bn in the first nine months of 2018, having closed the largest LBO in Asia Pacific to date, which is the JPY 825bn (USD 8bn) facilities backing Bain Capital-led consortium's leveraged buyout of Toshiba Memory Corp (chip unit).
- Australia came third after Hong Kong but closed the highest number of leveraged finance deals as of end Q3 2018 (five deals totalling USD 1.4bn).

Project Finance

The Asia Pacific project finance market is expected to reach ~USD 96bn, a 22% decrease versus last year's figure.

- While China continues to be the most active project finance country, project financing opportunities in the country tend to offer limited opportunities for international banks as transactions are largely denominated in local currency and tend to be done by Chinese banks due to their competitive pricing and stronger domestic liquidity.
- Malaysia was the second largest market at USD 8bn as of end Q3 2018, having closed no project financings in 2017. The country's project financing volume was boosted by the USD 8,000m one-year bridge financing for the fully integrated refining and petrochemical project located within the Pengerang Integrated Complex, an industrial site in South Johor, Malaysia.
- Taiwan also closed its first NTD-denominated true long-term project financing for an offshore wind farm in Taiwan in Q2 2018, namely the NTD 18,705m (USD 617m) loan for the Formosa I Offshore Wind Farm Project. The financing was supported by a mix of international and Taiwanese banks.
- More project financing opportunities in Taiwan are expected to come as the Government of Taiwan has launched an offshore wind energy program, with an aim to install 3GW of offshore wind farm capacity by 2020 and a further 4GW by 2030. Taiwan Power Company is also seeking proposals from independent power companies for building gas-fired power plants in Taiwan.

2019 forecast

Western Europe

- We are forecasting the overall 2019 volumes in EMEA to grow by 6% to USD 1,200bn.
- In the Western Europe corporate market, we expect 2019 volumes to increase versus 2018 as borrowers take advantage of attractive conditions to extend the maturity of their financings and/or to upsize their facilities. For 2019, margins should stabilise at their current low levels for investment grade companies, but the decline might slightly continue for non-investment grade and crossover transactions (BB+/BBB-). Refinancing activity is expected to keep expanding in 2019, as companies should continue to refinance their transactions signed in 2014-2015. Generally, we think that the European corporate loan market will remain favourable to borrowers in 2019, in a relationship driven context.

- The EMEA leveraged loan market is expected to remain stable-to-slightly declining in terms of volumes in 2019, supported by the increasing relative share of leveraged loans versus high-yield bonds, the near-term interest rate environment in Europe remaining conducive as well as the potential re-emergence of opportunistic transactions in a market starving for new money opportunities. Although macro-economic uncertainties (e.g. Brexit, trade war, slower growth in emerging countries) may lead to a more challenging market backdrop in the overall leveraged lending market, we still expect the key borrower-friendly themes of 2018 to remain prevalent in 2019 (e.g. cov-lite accessible to smaller companies, higher leveraged debt structures).
- The EMEA Project & Asset Backed Finance market remains very liquid as banks continue to access cheap liquidity combined with new and existing institutional investors seeking transactions to deploy cash. We do not expect this to change significantly in 2019, in particular if cheap liquidity continues to be available and interest rates remain low.
- Valuations in the Infrastructure market have continued to increase, which should lead to further M&A activity. Fibre optic greenfield deals will also come to market fuelled by incentives from Governments to meet broadband roll out targets. A few PPPs (highways, schools, prisons, hospitals) will also continue but these tend to be smaller deals banked by local lenders and institutional investors who can often lend long term at low spreads.
- Renewables, in particular offshore, will remain active for both greenfield and post construction re-financing. It remains the most banked Project Finance sector in the market today and we expect this trend to continue. The market will need to adapt as subsidies are gradually reducing and merchant exposure increases. New technologies such as offshore floating turbines may also test the market. We also expect institutional investors to play a more prominent role in the future as they adapt their requirements to meet the market supply.
- Commercial real estate remains extremely aggressively bid with yields continuing to tighten. Prime deals in France are now pricing senior debt well below 100 bps for 65% LTV. Brexit does not appear to have had a significant impact yet, but 2019 will be a key measure in this regard. Other headwinds could include rising interest rates. Features that we expect will develop further are the CMBS market which can accept looser structural terms and larger deals (>EUR 1bn), in particular due to the pooling of logistics deals which attract high valuations at a premium to the sum of the individual asset valuations.
- Oil & Gas volumes will likely be driven by jumbo deals such as Mozambique LNG. Reserve based lending will continue to record strong volumes, in particular if the oil price remains high and further private equity capital enters the market to purchase marginal assets from oil majors. New field developments will also attract financing as more banks return to the

market following the oil price crash a few years back. O&G financing will remain a bank-driven sector for senior loans but junior debt from debt funds may start to feature more prominently.

- We expect increased volumes in Shipping as deals are gradually returning to market across all sectors; Nordic banks remain the most active. Aircraft remains buoyant in both single asset deliveries and leasing with the strongest credits raising secured debt at <100 bp.

CEEMEA

The CEEMEA region will be driven next year by activity in the Middle East, possible M&A in the CEE region and growth in commodity financing and sovereign lending in Africa.

- The Middle East recorded huge volumes in 2018, largely driven by two jumbo deals in Saudi Arabia. For 2019, subject to political headwinds, Saudi Arabia may dominate the volumes again, but otherwise, there should be continued deal flow in the FI and corporate government-related space in Qatar, Abu Dhabi and Dubai. We also expect continued growth in Middle East private sector lending as banks search for yield and in the case of regional lenders, seek to diversify away from real estate lending.
- Given the political situation in Turkey, we do not expect any deal flow apart from the annual syndicated loans for the tier-1 Turkish banks.
- We anticipate further growth in Africa in FI's, sovereigns and corporates, in particular for O&G deals where the increase in oil price has improved the credit profile of a number of corporates and sovereigns across the continent.
- The Russian market is likely to remain subdued into 2019 following the recent sanctions which have significantly slowed down the loan market once again. This should feed through to higher available liquidity for issuers in the CIS and we therefore expect increased activity in those countries (Kazakhstan for example).
- Banks in the CEE remain very liquid and issuers have access to plenty of relatively cheap liquidity. As a result, the environment remains favourable for M&A, in particular in Czech Republic and Poland.

Americas

- We are forecasting the overall volumes in the Americas to grow by 5% from USD 3.1tr expected for 2018 to USD 3.3tr in 2019.
- In the investment grade space, we expect liquidity from banks to remain strong in 2019, although banks will continue to be disciplined about committing capital in the context of overall bank profitability. Although shorter tenors are favoured by banks as a result of Basel regulations, we think it is unlikely that issuers will be pressured to reduce tenors below five years due to strong competition.

- We expect the environment for M&A to remain supportive and that the trend to layer in more term loans as a substitute for traditional bridge loans will continue given the increased flexibility that term loans provide issuers with respect to how quickly they need to tap the bond market and the strong appetite from banks for this type of asset.
- Given the strong overall liquidity in the market, it is unlikely that we are going to see any near-term increase in pricing, and jumbo deals should be easily absorbed by the market. For the right deal, we believe that there is well in excess of USD 100bn of market capacity available from banks.
- With default rates expected to remain benign through 2019 combined with expectations of further rate hikes from the Fed, we believe that the US leveraged loan markets will continue to attract the wallets of investors looking for floating rate assets resulting in another year of strong market liquidity for leveraged deals. However, similar to the broader capital markets, geopolitical events such as an escalating trade war with China, softness in the Chinese economy or concerns around Brexit, have the ability to destabilise the leveraged loan markets although for 2018 any impact on the loan market from these types of events was very short lived.
- With the recent easing of the US banking regulators' enforcement of the leverage lending rules that were implemented in 2013, underwriting banks should feel more confident that highly leveraged deals (greater than six times debt to EBITDA) that they arrange will not face adverse regulatory scrutiny. With investors awash in cash and fighting for allocations, leverage levels are not expected to recede in 2019 from the nose-bleed levels seen in 2018 although it seems doubtful that they will climb any higher.
- If new issue supply is not able to keep up with investor demand, we would expect to see an uptick in opportunistic activity such as repricings and dividend recapitalisations.
- In project finance we expect volumes to be in line with 2018 with the key drivers being: (i) the next wave of LNG transactions, (ii) merchant power, (iii) renewables and (iv) mergers and acquisition activity.
- We expect renewables to have a strong year with notable developments to include corporate (versus utility) power purchase agreements, revenue hedges, loans with merchant tail risk and the introduction of energy storage to many transactions.
- In general, loan structures are expected to weaken as the market adapts to shorter off-take contract periods, and banks compete to win mandates by assuming more risk.
- The volume of traditional, fully contracted project finance deals is not expected to keep pace with bank demand resulting in further margin compression.
- In Latin America, Mexico is expected to be the primary source of volume in 2019 with energy-related activity expected to be a key driver of growth.

APAC

- We are forecasting the 2019 volume in APAC to remain flat at around USD 750bn.
- Corporate and acquisition activity should remain stable and be the key contributor to APAC loan volume in 2019. M&A loan volume may however remain low as Chinese regulators now monitor outbound investments and privatisations in Australia have also slowed down.
- The leveraged finance volume will continue to remain modest when compared to the rest of the world despite private equity sponsors having high cash balances and ample bank liquidity as the deal sizes in the region tend to be smaller when judged by international standards.
- There are a large number of project financings under discussion, particularly in Australia and Taiwan. Debt volumes for Indonesia power plant projects will be small as the Indonesia government published earlier in the year its reduced ambitions for new power projects due to expected reduced projected growth for electricity demand. Elsewhere, Australia's project financing pipeline continues to consist of renewable energy projects and infrastructure-related PPPs.

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